

INTRODUCTION

In our Petition to Deny, ZipDX asked that AT&T be compelled to deploy enhanced audio technology (referred to generically as “HDVoice”) in their network and handsets, and to provide for interoperation of HDVoice with other service providers, or that their merger request be denied.

In their Reply, the Applicants have dumped our issue into a “Grab-Bag of Conditions”¹ that they say are “substantively baseless.”² They accuse us of “using this merger proceeding to gain regulatory advantages that they have been unable to obtain on an industry-wide basis.”³

The Applicants claim that our “proposed conditions would not address any merger-specific effect” and are “unwarranted by any likely adverse consequences of this transaction.”⁴

With respect to our issue, the Applicants are wrong. Around the globe, the telecommunications industry is deploying HDVoice. It is almost universally available in business telephone systems. It is available in dozens of wireless handsets. Wireless operators in numerous countries (other than the USA) have activated it in their networks. And this is not (and should not need to be) one of many “matters that are the subject of other proceedings before the Commission....”⁵

This matter is all about the Merger.

Unlike the other issues being raised in this proceeding, HDVoice functions only when BOTH parties to a (two-party) conversation are equipped. Thus, even if ONE end-user (perhaps hearing-impaired) were to avail herself of this technology via a forward-thinking service provider, she would see minimal benefit if the DOMINANT network operator which serves the people she calls, and from whom she receives calls, refuses to deploy the technology or refuses to interoperate with her provider.

This “network effect” means that as a particular operator gains ever-greater market share, their stranglehold on this issue grows EXPONENTIALLY. This is in contrast to many other concerns that have been raised regarding the merger; they are primarily “single-ended.” Applicants’ arguments with respect to these other concerns are not relevant to our issue.

In Germany in 2006, T-Mobile and Ericsson conducted a demonstration of HDVoice⁶, gathering deployment experience and customer feedback. This early test with positive results set the stage for production deployments by European operators, and suggests that if left alone, T-Mobile might be an HDVoice first-mover in the United States. But this cannot happen if T-Mobile USA is obliterated.

Further, from a technology perspective, HDVoice is most mature for GSM operators. Post-merger, AT&T will be the only GSM-based operator of significant scale in the United States, threatening the competitive dynamics that might otherwise drive HDVoice deployment.

Unfortunately, we do not have access to a “parallel universe” and a “fast-forward button” that could let us know how events would play out if the status quo was maintained. Thus, we cannot say with certainty

¹ Joint Opposition of AT&T, Deutsche Telecom and T-Mobile USA at 209.

² Id. 211

³ Id. 209

⁴ Id. 209-210

⁵ Id. 210

⁶ http://www.ericsson.com/ericsson/corpinfo/publications/review/2006_03/02.shtml

that, with respect to HDVoice, consumers would be harmed by the merger. Neither, however, can the Applicants assure us that consumers will NOT be harmed, unless they accept our merger condition.

In the following sections, we explain these points in more detail.

THE INDUSTRY IS DEPLOYING HDVOICE

AT&T has accused us of using the merger for some “advantage” that we have not been able to obtain on an “industry-wide basis.”

The “advantage” is being able to readily understand what the heck somebody is saying when you are engaged in a telephone conversation. That sounds like more of a “baseline” than an “advantage” but we’ll set that aside.

In our Petition to Deny, we explained that HDVoice is today available and deployed in business telephone systems. Our ex parte meeting with Commission staff was conducted in HDVoice using commercially available equipment and services, as were subsequent ex parte’s.

Globally, *mobile* HDVoice is taking off. The Global mobile Suppliers Association (GSA) reports that “40% of countries in the European Union have commercially launched mobile HD Voice services, or are engaged in trials and tests ahead of planned commercial introduction. Furthermore, operator investments in mobile HD Voice extend far beyond Europe.”⁷

GSA also says that “A total of 33 HD Voice-capable phones are available from leading manufacturers including Alcatel, HTC, LG, Nokia, Samsung, and Sony Ericsson. Many of the latest products are shipping with the HD Voice capability activated as default.”⁸

In its June 14, 2011 release, France Telecom-Orange indicates that “With one million Orange customers to date, mobile HD Voice with Orange has been an outstanding commercial success, thanks to its wide range of compatible mobiles (over 20 references).”⁹

Orange indicates that they offer HDVoice in Moldova, Armenia, Belgium, France, Spain, the UK, Egypt, Luxembourg, Mauritius and Romania, with immediate plans for Dominican Republic and Uganda, and four more countries by the end of 2011. Other operators are also deploying HDVoice, according to GSA, including SFR (France), Mobistar (Belgium), Vipnet (Croatia), Tata (India), Mobinil (Egypt), Megafon (Russia), Wind (Canada), TIM (Italy), Vodafone (Turkey), and Turkcell (Turkey).

Orange claims that “HD Voice delivers better audio quality, ensuring real satisfaction for Orange customers, in terms of both fixed and mobile. This is reflected in a feeling of closeness, as well as a clearer, richer and more natural sound, an effective adaptation to noisy environments through significant background noise reduction, and a good understanding of conversations, even when whispered.”¹⁰

Obviously the technology for HDVoice is readily available. The previously-referenced 2006 trial by Ericsson and T-Mobile demonstrated the viability and showed that the benefits of HDVoice can be had without sacrificing spectrum.¹¹

⁷ http://www.gsacom.com/news/gsa_330.php4

⁸ Id.

⁹ http://www.orange.com/en_EN/press/press_releases/att00019503/CP_Voix_HD_14062011_ENG.pdf

¹⁰ Id.

¹¹ http://www.ericsson.com/ericsson/corpinfo/publications/review/2006_03/files/2_amrwb.pdf

The failure is in the United States, where competitive and operator dynamics seem to be working against the American consumer and against those with hearing impairments.

THE HDVOICE ISSUE IS DISTINCT FROM OTHER “SINGLE-ENDED” ISSUES

The HDVoice issue is distinct from many others under discussion in this proceeding because it requires that BOTH ENDPOINTS in a telephone call, as well as the network, support the feature.

Suppose Eve equips herself with an HDVoice-capable handset and gets her mobile service from a provider supporting HDVoice. (Eve lives in France.) She calls Francois; he is similarly equipped and gets his service from the same provider. They can have a wideband conversation.

But if Eve receives a call from Ralph, who is not HD-equipped, neither will get the benefit of HDVoice. Or if she calls Julie, who has an HD-capable phone, but is on another network that does not interoperate in HD with Eve’s network, they will be stuck in narrowband.

Contrast this with Fred, who is shopping for a mobile plan in Chicago and is not concerned with HDVoice (because he isn’t even aware of it). He can choose from any of a number of providers, all offering different pricing and features. Happily, the choice is entirely up to him. If Provider Z offers a 1-gigabyte daily download allowance and unlimited calls on weekends and voice-mail to email conversion, Fred will enjoy those benefits with any caller or website with whom he chooses to communicate.

Fred doesn’t have to try to convince his circle of friends to move to his chosen network in order to enjoy the benefits of his chosen plan (and provider). Yes, there are certain operators that encourage “in network” affinity, but competitors can address this. For example, Verizon offers unlimited calling to others on their network, but Sprint offers unlimited calling to ANY mobile network, mitigating Verizon’s advantage. Similarly, carriers (especially smaller ones) can make “off-network” roaming available to their customers and offer plans that compete with those providers that have a larger owned footprint.

This isn’t possible with HDVoice. If the people that Eve (or her American cousin) wants to talk to are on another network, and that network doesn’t support HDVoice, Eve won’t be able to take advantage of HDVoice, even if she’s acquired the technology for herself. Similarly, if a network refuses to interoperate in HDVoice with other networks, the benefit is lost.

Thus, when considering the impact of a merger, the issue of HDVoice, both making it available and providing for interoperability, is distinct from other issues. HDVoice cannot be dumped into a “grab-bag” of unrelated conditions.

NETWORK SCALE DRAMATICALLY INFLUENCES HDVOICE DEPLOYMENT

Clearly, network scale is a huge factor in evaluating how influential a particular operator can be in dictating how HDVoice is offered in a market. Obviously, the bigger share the operator has, the more influence. But because of the “double-ended” nature of HDVoice, this effect is dramatically amplified.

In a situation where several operators all have roughly similar market shares, each would recognize that if they deployed HDVoice, initial benefits would be small, because in only a tiny fraction of calls would both ends be HD-capable. But if a few of these operators get on board, then a tipping point is reached and market pressures will not allow remaining providers to withhold the capability.

On the other hand, if there is a dominant operator in the marketplace, then they hold all the power. If that operator chooses not to deploy (or not to interoperate), they limit the utility of HDVoice for ALL the other operators (and their customers), since obviously a sizable fraction of calls either originate from, or terminate to, that dominant operator.

Thus, we have a well-founded fear that if the merger leads to more “lopsidedness” in the market shares of the various operators, market forces will not be able to work the way they should, in the best interests of the consumers.

On the other hand, if there is a dominant operator and that operator DOES deploy HDVoice, then our “tipping point” is reached more quickly and this all works in a positive direction. We plead guilty to trying to insure that this merger leads to that positive outcome, rather than the negative one.

“VOICE NEGLECT” BY CARRIERS THREATENS AMERICA

Most of the Applicants’ justification for the merger centers around capacity issues associated with data services.

But voice telephony remains a critical service provided by the Applicants and their competitors. As we showed in our Petition using data from the Centers for Disease Control, most Americans now rely more heavily on mobile service than fixed-lines for their telephony needs.

And telephone calls are still a critical component of social and commercial interactions. Certainly they are necessary for our economy, security, safety, comfort, and entertainment.

The mobile operators in the United States generally, and the Applicants specifically, appear unmotivated and uncommitted when it comes to “continuous improvement” in the telephony domain. This is likely because the voice market is saturated and they see little benefit to themselves for whatever investment and attention they might put into this area.

AT&T has apparently determined that it is more beneficial to them to promote the ability to watch TV reruns on a smartphone while riding the subway than it is to improve the intelligibility of the hundreds of billions of telephone conversation minutes that they carry annually.

By giving AT&T an outsize share of the market, the merger makes it even less likely that, without some constraints, this neglect will be reversed. Skype has built a business that provides computer-to-computer calling in HDVoice, and has attracted hundreds of millions of users that have demonstrated a preference for improved voice quality. But that is not a substitute for the services offered by the mobile operators like AT&T, where mobility, PSTN connectivity, and near-ubiquity give it far more American subscribers and minutes than Skype can claim.

T-MOBILE USA WOULD BE A CANDIDATE TO DEPLOY HDVOICE

We’ve noted that T-Mobile’s parent company was an earlier participant in HDVoice trials in Europe.

We are not privy to the plans that T-Mobile (or its parent) might have with respect to this technology or any other, either here or in other locations. But we observe that T-Mobile USA is the only other nationwide GSM operator in the United States, and HDVoice in mobile networks is most mature in GSM networks.

Infrastructure suppliers have HDVoice capability ready to go, and handsets are readily available. It would be relatively easy for T-Mobile USA to activate this feature.

With T-Mobile USA eliminated, we lose the possibility that they would be a first-mover in deploying HDVoice in the United States.

USA GSM CONSOLIDATION THREATENS HDVOICE DEPLOYMENT

HDVoice has been standardized for some time and is commercially available for deployment on GSM (first generation) and UTMS (second generation) networks. As noted above, HDVoice-capable handsets and infrastructure equipment are available under this technology umbrella. Network operators have rolled it out and the GSM vendor and technical communities know how to engineer, install, and support it.

Today, only AT&T and T-Mobile operate GSM-based networks of significant scale in the United States. The other scale operators, Verizon Wireless and Sprint, operate CDMA-based networks. HDVoice is available for CDMA, but it there has been minimal (if any) actual deployment world-wide, and the supplier choices for a CMDA-based network operator are currently much more restrictive.

If AT&T and T-Mobile are allowed to merge, AT&T will be the only GSM scale operator. Given AT&T's apparent intrinsic reluctance to deploy HDVoice, America must now must look to Sprint and/or Verizon to be the first mover. And as noted, they both face a higher hurdle because of their network technology.

Certainly LTE could be helpful. HDVoice is standardized for LTE (3rd generation) by 3GPP, under the same standards umbrella responsible for GSM. If and when Verizon moves its voice traffic to LTE, it may be in a better position to take advantage of more popular HDVoice-related technologies.

But there are many if's here. Even ignoring the earlier experience of T-Mobile USA's parent, elimination of one of the two national GSM carriers clearly eliminates a potential low-resistance path to initial HDVoice deployment in America.

CONCLUSIONS & REMEDIES

We see two paths of logic that the Applicants could follow in disputing the arguments we have made:

1. Stipulate that absent this merger, neither of them would ever independently deploy HDVoice. Only then can they argue with certainty that there is ZERO possibility that the merger would LESSEN the chances that they would deploy.
2. Argue that the merger definitively makes it MORE likely that the combined entity will deploy HDVoice.

Path 1 addresses the Applicants' statement that "The commission 'will not impose conditions to remedy pre-existing harms or harms that are unrelated to the transaction.'"¹² If both AT&T and T-Mobile were never destined to deploy HDVoice, we can't ask the Commission to fix that now.

But of course the Applicants would never stipulate this. The merger may still not happen, and the Applicants must be prepared, if not to INITIATE voice quality improvements, at least to respond should their competitors choose to do so.

¹² Joint Opposition of AT&T, Deutsche Telecom and T-Mobile USA at 209.

With respect to Path 2: We have made a persuasive case that the merger puts deployment of HDVoice in the United States at risk, relative to the situation without the merger. We have not said that we KNOW that HDVoice will not be deployed, but we have presented numerous reasons that it MIGHT be buried, delayed, or encumbered.

If the Applicants believe otherwise, they are suggesting a reversal of course: That audio quality WILL become a priority at AT&T, and that we will not continue to fall further behind other countries with respect to this capability.

Should we believe them? The acceptable way for the Applicants to assure the American consumer, and especially those with hearing impairments, of this is to agree to the merger conditions that we have proposed, and respond with specific details of their deployment plans.

Respectfully submitted,

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