

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Level 3 Communications, LLC's
Tariff Filing to Introduce Revised Tariff Pages
For Its Access Services Tariff, Mo. P.S.C. Tariff
No. 4.

Case No. TT-2011-0324
Tariff No. JX-2011-0488

**RESPONSE OF LEVEL 3 COMMUNICATIONS, LLC TO AT&T'S MOTION TO
SUSPEND AND INVESTIGATE TARIFF**

Level 3 Communications, LLC ("Level 3") hereby responds to AT&T's Motion to Suspend and Investigate Level 3's recent tariff filing.¹ AT&T's objection to Level 3's tariff revisions are without merit.

The key purpose of Level 3's revised tariff is to establish rates and terms for Level 3's offering of its own tandem switching functionality in connection with the provision, by Level 3, of originating and terminating access services for interexchange carriers ("IXCs") such as AT&T. Prior to the introduction of this arrangement, Level 3, like most competitive local exchange carriers ("CLECs"), has chosen to "home" its end office switches on the applicable incumbent local exchange carrier ("ILEC") tandem switch. In Missouri, this means that Level 3's end offices have, historically, homed on tandems provided by AT&T itself (in its role as an incumbent local exchange carrier ("ILEC")).

Under this historical arrangement, when an IXC routes a call to Level 3 by means of an ILEC tandem, the ILEC charges the IXC for tandem functionalities (such as entrance facilities, transport to the tandem switch, and tandem switching itself), while

¹ *AT&T Motion to Suspend and Investigate Tariff*, filed April 20, 2011.

Level 3 charges the IXC for transport from the tandem to the end office, end office switching, etc. So, under the arrangements in place before Level 3's recent tariff revisions, to get a call to Level 3, the IXC receives tandem functionalities from the ILEC, and pays the ILEC for those functionalities, and receives transport and end office functionalities from Level 3, and pays Level 3 for them. Also, although it is not a common arrangement in practice, an IXC may of course choose to establish a direct connection to one or more Level 3 end office switches and avoid tandem charges altogether.

Once the network changes contemplated by Level 3's recent tariff revisions have been fully implemented, the network functionalities available to IXCs will remain unchanged. The IXC may, if it chooses, establish direct connections to Level 3's end offices. The more common situation, however, will be for IXCs to continue to use tandem and switching functionalities to conveniently obtain connections to all Level 3 end offices by means of a connection to a tandem switch. The only difference will be that Level 3 will have rehomed its end office switches onto its **own** tandems, so that IXCs will purchase both tandem transport and switching functionalities, as well as end office functionalities, directly from Level 3. Level 3, in short, will be performing more functions for IXCs than in the past. Level 3's revised tariff lays out those arrangements and establishes rates for them.

AT&T does not appear to object to these new arrangements *per se*. Instead, AT&T objects to Level 3's modifications to the definition of "end office" for purposes of the tariff. Level 3 made this definitional change in order to accommodate technical and regulatory developments in the last several years that affect the appropriate tariff

language. Specifically, switching technology has evolved substantially over the last decade. In particular, both rural ILECs and CLECs have been moving away from expensive – and increasingly outmoded – switches of the types traditionally used by ILECs, and are instead deploying what are known as “soft switches.” These switches are entirely capable of performing traditional “circuit” switching, but are both less expensive, and technically more versatile, than the old-style switches still typically found in large ILEC networks. The FCC has described this development as follows:²

In recent years ... telecommunications technology has been evolving from circuit-switched to an IP-based environment and many smaller rate-of-return carriers are purchasing soft switches. Soft switches and routers tend to be cheaper and more efficiently scaled to smaller operating sizes than the specialized hardware-based switches that predominated [in prior years].

The FCC goes on to explain:³

A soft switch connects calls by means of software running on a computer system. In such configurations the “switching” is virtual because the actual path through the electronics is based on signaling and database information rather than a physical pair of wires. Soft switches are economically desirable because they offer significant savings in procurement, development, and maintenance. Such devices feature vastly improved economies of scale compared to switches based on specialized hardware.

Without getting into the technical details, while soft switches perform all the functions that “traditional” switches perform, the specific manner in which they do so is not identical.⁴

² *Connect America Fund, etc.*, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, WC Docket No. 10-90 *et al.*, (released February 9, 2011) (“*Universal Service/Intercarrier Compensation NPRM*”) at ¶ 187 (footnotes omitted).

³ See *Id.*, ¶ 187 & n.298.

⁴ In this regard, Level 3 notes that its broader definition of switching functionality is entirely consistent with industry understanding and practice. For example, the widely-cited NEWTON’S TELECOM DICTIONARY defines a “softswitch” as “[a] type of switch developed in the late 1990s as

In light of these technical developments, Level 3, in the course of reviewing its access tariff to implement the new tandem service described above, believed that it would be prudent to update the definition of “End Office” in the definitions section. With those technical developments in mind, we proposed the following changes to our previous tariff:

End Office: The term “end office” denotes the switching system office or serving wire center **(or functionally equivalent or analogous facilities)** where Customer station loops **(or functionally equivalent or analogous facilities)** are terminated **or otherwise connected to the Company’s facilities or services** for purposes of interconnection to each other and/or to trunks.

The purpose and intended effect of the proposed changes was to take account of the changes in switching technology described above.

In this regard, Level 3 also notes that the FCC, in establishing access charge rules for CLECs, has chosen to focus not on the specific technology a carrier might use to perform the functions of transport, tandem switching, end office switching, etc., but instead on what functionalities are, in fact, being provided. Thus, the FCC’s access rules for CLECs define “switched access services” for CLECs as services that “include the ***functional equivalent of*** the ILEC interstate access services” associated with various ILEC access rate elements.⁵ Level 3’s modifications to the definition of “end office,” therefore, are not only not objectionable – they are in direct conformance with the regulatory policies of the FCC – and, we believe, this Commission as well – relating to the provision of access services by CLECs. In light of this sound approach to CLEC

a replacement for the CO (central office) circuit switches used in the traditional PSTN (public switched telephone network)....” *Id.* at 738.

⁵ 47 C.F.R. § 61.26(a)(3) (emphasis added).

access charges, it makes no difference what specific equipment Level 3 might use to provide access services to AT&T. What matters is what the equipment **does**.⁶

It is also immaterial that Level 3's specific language does not exactly track that of AT&T, its affiliate TCG, or even other carriers.⁷ Level 3's specific language is based on the principle just discussed, which is that CLECs are generally permitted to assess access charges based on the **functions** the CLEC performs, not based on the specific technology used to perform those functions. The fact that technology in the industry has continued to evolve – including, specifically, switching technology – suggests that tariff language should avoid any implication that only traditional technology is or might be contemplated by that language. Thus, while the FCC, in noting that RLECs are increasingly using soft switches to perform access services, has implicitly recognized that this technology is rapidly becoming standard, prudence dictates that, when the opportunity presents itself, tariff language should be updated to reflect the existence of the new technology.

In this regard, AT&T also appears to object to the fact that, because the switches in Level 3's network are less expensive than the traditional devices used by ILECs to provide end office switching functions, it is somehow inappropriate for Level 3 to recognize, in its definition of "end office," that these more modern and efficient devices may be used.⁸ Neither this Commission, nor the FCC, nor any other state regulator of which Level 3 is aware, attempts to establish CLEC access rates based on an analysis

⁶ There is, therefore, no basis for AT&T's concern that Level 3 might use an "IP gateway or similar device" (AT&T motion at page 3, paragraph 7) to provide end office switching functions. As long as those functions are provided to AT&T, the technical details are of no consequence.

⁷ See AT&T Motion at pages 3-4, paragraph 8.

⁸ See AT&T Motion at page 2, paragraph 5.

of the CLEC's own specific costs of providing any particular service. To the contrary, the FCC's approach – in which CLECs are permitted to establish access charges at any level that does not exceed the ILEC's rates for the same functions (or, perhaps, a benchmark based on those rates) – is the most common. See, Sections 392.361.6 and 392.370, RSMo. The purpose of this approach is to simultaneously achieve regulatory savings (no need to examine CLEC costs in detail) and to encourage CLECs to use the most efficient available technology to perform access services and other functions.⁹

AT&T's specific objections to Level 3's revised tariff language are without merit. AT&T claims that the new tariff language would allow Level 3 "to charge traditional end office switched access rates in situations in which it serves only as an intermediate carrier, providing no loops to end users or even local exchange switches. In this effect, the unduly expansive and vague definition of the mechanisms that would be deemed 'end offices' is unjust, unreasonable, and improper."¹⁰ Nothing about Level 3's new tariff language would have such an effect. When a switching device in Level 3's network acts as an "intermediate" switch, connecting an IXC with a Level 3 (or third party) end office, Level 3 would not be providing the "functional equivalent" of end office

⁹ AT&T vaguely alludes to Level 3's new network architecture as a "super-tandem" arrangement in which the physical function of tandem switching will not occur in Missouri, even for intrastate calls – that is, calls that begin and end in this state. AT&T Motion at page 3, paragraph 7, footnote 5. But the rule for determining jurisdiction over traffic has always been its beginning and end points, not any intermediate routing or switching. Traffic that begins and ends in Missouri is intrastate traffic under this Commission's jurisdiction. AT&T appears to be suggesting that Level 3 might be attempting to avoid or limit this Commission's jurisdiction over its intrastate access services. Nothing could be further from the truth. Level 3 has several months ago implemented, in its FCC access tariff, essentially identical changes to those proposed here in Missouri. If Level 3 were trying to assert that the physical location of its tandems determined the regulatory jurisdiction of its tandem switching service, there would have been no reason to file its tariff modifications with this Commission at all. It is only because Level 3 **recognizes** this Commission's jurisdiction that the tariff changes were made.

¹⁰ AT&T Motion at page 3, paragraph 6.

switching and so would not be entitled to assess end office rates. (In that situation, Level 3 would be providing tandem switching service, and would charge for *that*.) Only when Level 3's switching devices are providing the functional equivalent of traditional end office switching would Level 3's tariff authorize the imposition of end office switching rates on AT&T.¹¹

For these reasons, AT&T's objections to Level 3's proposed tariff language are without merit. AT&T's *Motion to Suspend and Investigate Tariff* should be denied.

Respectfully submitted,

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¹¹ The purpose and effect of the revised tariff language is to permit Level 3 to bill for both tandem and end office switching when it performs those functions. AT&T does not appear to contend that Level 3 does not or will not perform those functions once its network reconfiguration is in place.

CERTIFICATE OF SERVICE

I hereby certify that the undersigned has caused a complete copy of the attached document to be electronically filed and served on the Commission's Office of General Counsel (at gencounsel@psc.mo.gov), the Office of Public Counsel (at opcservice@ded.mo.gov), and counsel for AT&T, on this 22nd day of April 2011.

/s/ William D. Steinmeier
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