

NOT FOR PUBLICATION WITHOUT THE  
APPROVAL OF THE APPELLATE DIVISION

SUPERIOR COURT OF NEW JERSEY  
APPELLATE DIVISION  
DOCKET NO. A-2909-18

VERIZON NEW JERSEY, INC.,

Plaintiff-Appellant/  
Cross-Respondent,

v.

BOROUGH OF HOPEWELL,

Defendant-Respondent/  
Cross-Appellant.

APPROVED FOR PUBLICATION  
AS REDACTED

July 25, 2024

APPELLATE DIVISION

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STATE OF NEW JERSEY,

Intervenor.

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Argued November 1, 2021 – Decided June 14, 2023

Before Judges Accurso, Rose and Enright.

On appeal from the Tax Court of New Jersey, Docket No. 012215-2009, whose opinions are reported at 26 N.J. Tax 400 (Tax 2012) and 31 N.J. Tax 49 (Tax 2019).

Peter G. Verniero argued the cause for appellant/cross-respondent (Sills Cummis & Gross PC, and McCarter & English, LLP, attorneys; Peter G. Verniero and Susan A. Feeney, of counsel and on the briefs; Katherine M. Lieb and Farhan Ali, on the briefs).

Joseph C. Tauriello and Gregory B. Pasquale argued the cause for respondent/cross-appellant (Joseph C. Tauriello and Shain Schaffer PC, attorneys; Sarah E. Fitzpatrick, Xiaosong Li, and Gregory B. Pasquale, of counsel and on the briefs; Joseph C. Tauriello, on the briefs).

Michelline Capistrano Foster, Deputy Attorney General, argued the cause for intervenor (Matthew J. Platkin, Attorney General, attorney; Melissa H. Raksa, Assistant Attorney General, of counsel; Michelline Capistrano Foster, on the brief).

Gregory B. Pasquale argued the cause for amicus curiae New Jersey State League of Municipalities (Shain Schaffer PC, attorneys; Joel L. Shain, of counsel and on the brief; Gregory B. Pasquale and Sarah E. Fitzpatrick, on the brief).

The opinion of the court was delivered by

ACCURSO, J.A.D.

Verizon New Jersey, Inc., inheritor of New Jersey Bell Telephone Company's local exchange service telephone network, has been locked in a battle with the Borough of Hopewell for more than a decade over whether Verizon has to pay the municipal tax for 2009 on its business personal property in the Borough under N.J.S.A. 54:4-1. In two published decisions, the Tax Court determined: (1) the statute's 51% market-share calculation must be performed annually, and an annual market-share calculation, as applied to Verizon, does not violate the State and federal equal protection guarantees,

N.J. Const. art. I, § 1, and U.S. Const. amend. XIV, § 1, the State prohibition of special legislation, N.J. Const. art. IV, § 7, ¶ 9, or the Uniformity Clause, N.J. Const. art. VIII, § 1, ¶ 1(a), Verizon New Jersey, Inc. v. Hopewell Borough, 26 N.J. Tax 400, 414-32 (Tax 2012) (Verizon I), and (2) that Verizon is subject to the tax imposed for tax year 2009 because it provided dial tone and access to 51% of the Hopewell telephone exchange in 2008, Verizon New Jersey, Inc. v. Borough of Hopewell, 31 N.J. Tax 49, 70-76 (Tax 2019) (Verizon II). Finding no flaw in either of the Tax Court's thorough and thoughtful opinions, we affirm.

### The Telephone Companies

A little background — both as to the telecommunications industry and New Jersey's approach to taxing it — will make the case easier to understand. Before the break-up of AT&T in 1984, it monopolistically "dominated the national telecommunications industry," controlling "virtually all long-distance telephone service, most local telephone service, and a substantial amount of all telephone equipment manufacturing."<sup>1</sup> AT&T Corp. v. Iowa Utils. Bd., 525

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<sup>1</sup> The consent decree ending the government's antitrust suit against AT&T was entered on August 24, 1982, United States v. Am. Tel. & Tel. Co., 552 F. Supp. 131, 196 (D.D.C. 1982), aff'd sub nom. Maryland v. United States, 460 U.S. 1001 (1983), the court approved the plan of reorganization in 1983,

U.S. 366, 413 (1999) (Breyer, J., concurring in part and dissenting in part).

The federal consent decree resolving the government's antitrust action against the company divested it of its local-exchange carriers, the "Baby Bells," "leaving AT&T as a long-distance and equipment company, and limiting the divested carriers to the provision of local telephone service." Verizon Commc'ns, Inc. v. FCC, 535 U.S. 467, 475 (2002)).

The decree had the intended effect of rapidly bringing competition to AT&T from the likes of MCI and Sprint for long-distance service and likewise encouraged competition for telephone equipment. Iowa Utils. Bd., 525 U.S. at 413. "The decree did nothing, however, to increase competition in the persistently monopolistic local markets," Verizon Commc'ns, Inc., 535 U.S. at 475, as each local retail telephone market generally remained "in the hands of a single state-regulated local service supplier, such as NYNEX in New York," Iowa Utils. Bd., 525 U.S. at 414 (Breyer, J.), or New Jersey Bell, Verizon's predecessor, here.<sup>2</sup> As Justice Souter succinctly put it: "The upshot of the

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United States v. W. Elec. Co., 569 F. Supp. 990, 993 (D.D.C. 1983), and divestiture occurred on January 1, 1984, id. at 994 n.11.

<sup>2</sup> Although "[t]he Bell System provide[d] basic telephone service to 80 percent of all telephone subscribers in the Continental United States" at the time of the breakup, independent telephone companies also existed. W. Electric, 569 F. Supp. at 993 n.8. New Jersey was served by two, United Telephone Company

1984 divestiture . . . was a system of regional service monopolies (variously called 'Regional Bell Operating Companies,' 'Baby Bells,' or 'Incumbent Local Exchange Carriers' (ILECs)), and a separate, competitive market for long-distance service from which the ILECs were excluded." Bell Atl. Corp. v. Twombly, 550 U.S. 544, 549 (2007).

"Until the 1990's, local phone service was thought to be a natural monopoly," Iowa Utils. Bd., 525 U.S. at 371, owing to the high costs of entry to an aspiring competitor in a local retail telephone market. "The physical incarnation of such a market, a 'local exchange,' is a network connecting terminals like telephones, faxes, and modems to other terminals within a geographical area like a city." Verizon Commc'ns, 535 U.S. at 489.

The incumbent local carrier either built or, more likely, inherited "the local loops (wires connecting telephones to switches), the switches (equipment directing calls to their destinations), and the transport trunks (wires carrying calls between switches) that constitute a local exchange network," Iowa Utils. Bd., 525 U.S. at 371, which the Supreme Court once likened to "a transportation network for communications signals, radiating like a root

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of New Jersey and Warwick Valley Telephone Company, both of which still exist. Verizon I, 26 N.J. Tax at 409 n.2.

system from a 'central office' (or several offices for larger areas) to individual telephones, faxes, and the like," Verizon Commc'ns, 535 U.S. at 490.

"A newcomer could not compete with the incumbent carrier to provide local service without coming close to replicating the incumbent's entire existing network, the most costly and difficult part of which would be laying down the 'last mile' of feeder wire, the local loop," connecting "the thousands (or millions) of terminal points in individual houses and businesses" to the aspiring competitor's new network. Ibid.

Enter Congress, which passed the Telecommunications Act of 1996, aimed at eliminating "the monopolies enjoyed by the inheritors of AT&T's local franchises" by requiring those incumbent local exchange carriers to share their networks with new competitors, id. at 476, called, aptly enough, competitive local exchange carriers or CLECs. Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified in separate sections within 15 U.S.C., 18 U.S.C., and 47 U.S.C.). See 47 U.S.C. §§ 251-53, 271.

The 1996 Telecommunications Act permitted a new requesting carrier to gain access to an incumbent's network by purchasing "local telephone services at wholesale rates for resale to end users," Iowa Utils. Bd., 525 U.S. at 371, by leasing elements of the incumbent's network "'on an unbundled basis' — i.e., a la carte —" making "it easier for a competitor to create its own network

without having to build every element from scratch," and by interconnecting its own facilities with the incumbent's network, thus ensuring "customers on a competitor's network can call customers on the incumbent's network, and vice versa," Talk Am., Inc. v. Mich. Bell Tel. Co., 564 U.S. 50, 54 (2011).

The 1996 Telecommunications Act "fundamentally restructure[d] local telephone markets," Iowa Utils. Bd., 525 U.S. at 371, and new competition ushered in new systems and technologies, including voice-over-internet protocol (VoIP), which allowed large commercial customers to use telephone numbers connected over a network internet cable rather than dial tone and access lines, transforming modes of service, Verizon II, 31 N.J. Tax at 59 & n.7. Deregulation also changed New Jersey's approach to taxing telecommunication companies.

### Taxation of the Telephone Companies

In the years before the breakup of AT&T, telephone and telegraph companies in New Jersey were subject to Chapter 4 of the Franchise and Gross Receipts Tax, N.J.S.A. 54:30A-16 to -29, repealed by L.1997, c. 162, § 77 (eff. Jan. 1, 1998), a comprehensive annual franchise and excise tax imposed on the gross receipts of public utilities "using or occupying public streets, highways, roads and other public places," N.J.S.A. 54:30A-18. In 1945, when the

Legislature passed the Corporation Business Tax Act, N.J.S.A. 54:10A-1 to -40, requiring domestic and foreign corporations not otherwise exempt to pay an annual state franchise tax "in lieu of all other State, county or local taxation" on intangible business personal property, N.J.S.A. 54:10A-2, it expressly exempted all corporations subject to the Franchise and Gross Receipts Tax's Chapter 4, N.J.S.A. 54:10A-3(a) (excluding from the CBT those corporations subject to a tax assessed on the basis of gross receipts).

And in 1966, when the Legislature adopted the Business Personal Property Tax Act, L. 1966, c. 136, §§ 1-21 (codified as N.J.S.A. 54:11A-1 to -21), repealed by L. 1993, c. 174, § 1, ending the taxation of business personal property at the local level, it expressly excluded the "goods and chattels used or held for use in business by any . . . corporation subject to taxation under chapter 4 of the laws of 1940 [the Franchise and Gross Receipts Tax's Chapter 4], as amended." L. 1966, c. 136, § 2(b)(5). Verizon I, 26 N.J. Tax at 410-12 (explaining the events leading up to the law's passage). The Legislature also simultaneously amended the local property tax law, N.J.S.A. 54:4-1, to provide that personal property taxable locally included "only tangible goods and chattels, exclusive of inventories, used in business of telephone, telegraph and messenger systems, companies, corporations or associations subject to tax under chapter 4, laws of 1940, as amended." L. 1966, c. 138, § 1.



Thus, instead of subjecting telecommunication companies to state franchise and business personal property taxes, the Legislature retained a local franchise tax imposed on the business personal property of "[t]he telephone and telegraph companies," the companies having "suggested that the taxation of their personal property remain on a local basis." N.J. Bell Tel. Co. v. Laurel Springs Borough, 1 N.J. Tax 619, 627 (Tax 1980) (quoting State of N.J., Report of the Governor's Comm. on Loc. Prop. Tax'n 53 (Dec. 15, 1965)).

As Judge Menyuk more fully explains in Verizon I, 26 N.J. Tax at 412-13, the Legislature responded in 1989 to the breakup of AT&T by adding the qualifier "local exchange" to "telephone companies" in N.J.S.A. 54:4-1 and by defining a "local exchange telephone company" to essentially exclude "certain interexchange and interstate telecommunications companies." Id. at 412 (quoting S. Revenue, Fin. & Appropriations Comm. Statement to A. 135 (Oct. 20, 1988)). That is, after AT&T's divestiture, but before deregulation of the local markets, the Legislature amended N.J.S.A. 54:4-1 by limiting the statute's applicability to local exchange telephone companies, which it defined as "a telecommunications carrier providing dial tone and access to substantially all of a local telephone exchange." L. 1989, c. 2, § 4. Judge Lasser described the effect as "shift[ing] the local personal property tax from

AT&T to New Jersey Bell which had become the local exchange company."

N.Y. SMSA Ltd. P'ship v. E. Hanover Twp., 13 N.J. Tax 564, 568 (Tax 1994).

The Legislature also adopted N.J.S.A. 54:4-2.49a that same year, which provides:

Notwithstanding the provisions of chapter 4 of Title 54 of the Revised Statutes [the Franchise and Gross Receipts Tax], there shall be no payment of the personal property taxes required by telecommunications carriers other than local exchange telephone companies that would be paid during the year in which this section takes effect, based on the prior January 1 assessment date of that property.

[L. 1989, c. 2, § 6.]

Consequently, the long-distance carriers, AT&T and its competitors, were no longer subject to the Franchise and Gross Receipts Tax, or to local taxation of business personal property under N.J.S.A. 54:4-1. Instead, they became taxable as ordinary corporations under the CBT, rather than as public utilities. Verizon I, 26 N.J. Tax at 412-13. Only the incumbent local exchange carriers, New Jersey Bell and the State's two independent local exchange carriers, United Telephone and Warwick Valley, remained subject to the Franchise and Gross Receipts Tax. Id. at 413.

Following the restructuring of the local markets in the wake of the 1996 Telecommunications Act, the Legislature in 1997 passed an act to "revis[e] the taxation of gas and electric public utilities and certain telecommunications

companies . . . in order to preserve certain revenues under transitions to more competitive markets in energy and telecommunications." L. 1997, c. 162, §§ 1-78. The relevant changes to N.J.S.A. 54:4-1 in Section 60, L. 1997, c. 162, § 60 were twofold.

First, the Legislature amended N.J.S.A. 54:4-1 by adding the April 1997 "as of" date in the following sentence: "Personal property taxable under this chapter shall include . . . the tangible goods and chattels, exclusive of inventories, used in business of local exchange telephone, telegraph and messenger systems, companies, corporations or associations that were subject to tax as of April 1, 1997 under L. 1940, c. 4 (C.54:30A-16 et seq.) as amended," L. 1997, c. 162, § 60, i.e., New Jersey Bell, then called Bell Atlantic – New Jersey, United Telephone, and Warwick Valley.<sup>3</sup> Verizon II, 31 N.J. Tax at 52; Verizon I, 26 N.J. Tax at 413 & n.6.

Second, it amended N.J.S.A. 54:4-1 by redefining a local exchange telephone company from its 1989 version — "a telecommunications carrier providing dial tone and access to substantially all of a local telephone exchange," L. 1989, c. 2, § 4 — to "a telecommunications carrier providing

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<sup>3</sup> New Jersey Bell changed its name to Bell Atlantic – New Jersey, Inc. in 1994. Following the merger of Bell Atlantic – New Jersey's parent company with GTE Corporation, the company changed its name to Verizon New Jersey, Inc. in 2000. United Telephone now operates as CenturyLink. Warwick Valley does business as WVT Communications.

dial tone and access to 51% of a local telephone exchange," L. 1997, c. 162, § 60.

The Legislature also made three other pertinent changes in L. 1997, c. 162. It repealed L. 1940, c. 4, that is, the Franchise and Gross Receipts Tax's Chapter 4, L. 1997, c. 162, §§ 77-78, and ended the CBT Act's exemption in N.J.S.A. 54:10A-3 for the three telephone companies that remained subject to Chapter 4 at its repeal, L. 1997, c. 162, § 1. And, to address the revenues lost by repeal of the Franchise and Gross Receipts Tax, the Legislature created the Uniform Transitional Utility Assessment Act, N.J.S.A. 54:30A-114 to -126, "to provide a complete framework and method for the making of a uniform transitional utility assessment on telephone companies that were subject to the provisions of L. 1940, c. 4 (C.54:30A-16 et seq.) [the Franchise and Gross Receipts Tax's Chapter 4] as of April 1, 1997, . . . or their corporate or non-corporate legal successor or assignee." L. 1997, c. 162, § 50(b).

### The Dispute

With that backdrop, a few additional facts will help put the dispute between Hopewell and Verizon in context. In addition to the poles, cables, conduit systems and electronic equipment Verizon maintains in every municipality to allow it to provide telephone services, Verizon owns land and

a building on Broad Street in Hopewell it uses as a switching station. The business personal property Verizon maintains there, the fiber optic cables, electronic equipment, circuits and computers, are also included in the business personal property tax assessment at issue here.

Verizon's switching station, however, also houses the business personal property of a competitive local exchange carrier, as it is required to do by federal law, an arrangement known as "collocation." 47 U.S.C. §§ 251, 259; 47 C.F.R. § 59.1 (1997). The CLEC's cables, circuits and computers inside Verizon's Hopewell switching station are not subject to the tax imposed by N.J.S.A. 54:4-1, because the CLEC was not a local exchange telephone company that was subject, as of April 1, 1997, to Chapter 4 of the Franchise and Gross Receipts Tax. Verizon I, 26 N.J. Tax at 405.

Following the legal and business changes we've described, Verizon every September filed with Hopewell Borough a Form PT-10, Return of Tangible Personal Property Used In Business by Local Exchange Telephone Companies, reporting the value of its business personal property in the Borough as of January 1, which the assessor used to set the assessment for the following year in accordance with N.J.S.A. 54:4-2.48. In August 2008, however, Verizon wrote to Hopewell's mayor and tax assessor advising it would not be filing a return for the 2009 tax year because it no longer provided

"dial tone and access to at least 51% of the local telephone exchange" within the Borough.

Verizon came to that conclusion somewhat fortuitously. Verizon is the administrator of the Automatic Location Identification database for New Jersey's Enhanced 911 (E911) system. The E911 system automatically reports the telephone number and the geographical location of the telephone used to place any 911 call made on a wireline phone. N.J.S.A. 52:17C-1(g) (defining "Enhanced 9-1-1 service"); see also Wilson ex rel. Manzano v. City of Jersey City, 209 N.J. 558, 574-75 (2012) (explaining the history of the public and private partnership between government agencies and the telecommunications companies supporting the statewide E911 system).

The E911 database is the source of the information linking a telephone number with a specific location. As Judge Brennan noted in Verizon II, the local exchange carriers are obligated to timely provide their customer records to the E911 database administrator to ensure the accuracy of the database at all times. 31 N.J. Tax at 57. "For public safety reasons and privacy concerns, the E911 database is strictly confidential, and the information contained within it is accessible only to the administrator." Id. at 58; see Section 222 of the Communications Act of 1934, 47 U.S.C. § 222.

It was through its role as administrator of the E911 database that Verizon learned in 2008 that Neustar, the North American Numbering Plan Administrator, had recently issued a slug of 10,000 telephone numbers with the area code 609 and three-digit exchange code 274, one of the exchange codes associated with the Hopewell rate center in the Hopewell telephone exchange.<sup>4</sup> Neustar issued the block at the behest of a competitive local exchange carrier providing phone service to Merrill Lynch's Hopewell Township campus on Scotch Road, a large three-building complex housing approximately 5,600 employees, physically located within the geographic boundaries of the Pennington Telephone Exchange as represented on Verizon's tariff maps and having a Pennington mailing address.

Verizon, knowing the new 609-274-xxxx listings in the E911 database were not Verizon listings, and that the block of new numbers was assigned to the Hopewell rate center, concluded it no longer provided dial tone and access to 51% of the Hopewell exchange. It thus wrote the letter to the Borough

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<sup>4</sup> The North American Numbering Plan was devised "by AT&T and Bell Laboratories . . . to standardize telephone dialing" in the 1940s and maintained by AT&T until its breakup in 1984 when the FCC outsourced its administration to Neustar. New York v. FCC, 267 F.3d 91, 95 (2d Cir. 2001). Under the plan, all "telephone numbers are ten digits in length: the first three digits are called the numbering plan area ('NPA' or 'area') code, the second three are called the central office code, or prefix, and the final four digits are the individual line numbers," referenced as NPA-NXX-XXXX. Ibid.

advising it would not be filing a business personal property tax return for the 2009 tax year and did not do so.

Hopewell maintained Verizon remained subject to the tax. Using the information Verizon provided on its 2008 PT-10 return, the Borough's assessor established an assessment for tax year 2009 of \$1,897,655 and tax of \$38,655.23. Verizon paid the tax and appealed the assessment to the Mercer County Board of Taxation, which affirmed the assessment without prejudice, leading to this decade-long appeal resulting in two published opinions of the Tax Court issued several years apart.

**[At the court's direction, the published version of this opinion omits discussion of whether the 51% test of N.J.S.A. 54:4-1 is to be applied annually and Verizon's constitutional challenges to the statute from page 17, line 7 through page 39, line 10. R. 1:36-3.]**

### The Trial

The sole issue for resolution at trial was whether Verizon "provided dial tone and access to 51%" of the Hopewell local telephone exchange as of January 1, 2008. N.J.S.A. 54:4-1; Verizon II, 31 N.J. Tax at 51. Complicating the question is that the statute does not define "local telephone exchange" or



provide a means for calculating 51% of it.<sup>5</sup> There are no regulations implementing this aspect of the statute. Verizon II, 31 N.J. Tax at 61 n.8. The parties and their experts disagree on how to define a local exchange and how to calculate market share within one. Id. at 51.

The United States Supreme Court defined a "local exchange" in 2002 as "a network connecting terminals like telephones, faxes, and modems to other terminals within a geographical area like a city." Verizon Commc'ns, 535 U.S. at 489. Verizon's own 1993 tariff<sup>6</sup> approved by the Board of Public Utilities and effective through July 2014, and thus as of the January 1, 2008 assessment date, similarly defines an exchange as "a unit established by the Company for

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<sup>5</sup> The statute doesn't define "dial tone" or "access" either, but the parties do not differ in their understanding of the plain meaning of those terms. Thus, they agree "dial tone" refers to the audible tone sent from an automatic switching system to a customer to indicate the equipment is ready to receive dial signals, and "access" means the use of the local exchange network over a phone line or access line to connect to the Public Switched Telephone Network, the global network of circuit-switched public telephone networks. Those definitions limit the market being measured to wireline telephones and related devices, such as fax machines and dial up modems, accessing the Public Switched Telephone Network via an actual copper or fiber optic transmission line that travels on telephone poles or underground, colloquially referred to as landlines. They necessarily exclude cellular phones or other "wireless" devices.

<sup>6</sup> Verizon's internal expert, who formerly headed the group responsible for the company's tariff maps, described its tariff as containing "all the services that Verizon provides," as well as "the rates that Verizon charges for those services, and it explains the terms and conditions under which Verizon offers those services."

the administration of communication service in a specified area which usually embraces a city, town or village and its environs. It consists of one or more central offices which may be located within or without the territorial boundaries of the exchange." New Jersey Bell Telephone Company Tariff B.P.U.-N.J.-No.2, § 2.1 (5th revised 1993). Verizon's tariff defined "the territorial boundaries" of the Hopewell local exchange by reference to a map filed with BPU.<sup>7</sup> The parties and their experts agree the Merrill Lynch complex in Hopewell Township is physically located outside the territorial boundaries of the Hopewell exchange as depicted on Verizon's tariff exchange map. Verizon II, 31 N.J. Tax at 60.

Hopewell relies on that traditional definition of a local exchange as one having clearly demarcated territorial boundaries. Its expert, Michael Starkey, a telecommunications consultant previously employed by three different state public utility commissions and specializing in telecommunications markets, prepared several reports admitted in evidence and testified at trial that "[l]ocal telephone exchanges are well-defined, geographical areas with known

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<sup>7</sup> Verizon's 1983 tariff section 5.1.7 contained the same map, New Jersey Bell Telephone Company Tariff, Verizon N.J. Inc., B.P.U. N.J. No. 2, Second Revised Page No. 25, section 5.1.7. Verizon's product guide on file with BPU, which superseded Verizon's tariff in 2014, includes the same map depicting the Hopewell local exchange. See Verizon II, 31 N.J. Tax at 54 (quoting the product guide's statement that "the maps which are part of this section of the product guide show the territorial boundaries of each exchange area").

boundaries that can be mapped with specificity." Id. at 68. He claimed those defined geographical local exchanges "are the building blocks of the local telephone marketplace from a network, service and regulatory standpoint." Ibid.

Starkey testified local exchanges are "grouped together" based on "communities of interest" to form local service areas,<sup>8</sup> which are further aggregated into local access and transport areas (LATAs), and those "LATAs, and the local telephone exchanges that comprise them, are an important aspect of the U.S. telecommunications regulatory framework."<sup>9</sup> Indeed, he claimed

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<sup>8</sup> Using Verizon's 1993 tariff as an example, Starkey explained the local service area for Verizon's Hopewell exchange consisted of the Hopewell telephone exchange as well as the Belle Mead, Lambertville, Lawrenceville, Neshanic, Pennington and Princeton exchanges. A Verizon customer located in the Hopewell exchange could call anyone in the same service area without a toll charge. The local service area thus defined the customer's local calling area. See W. Elec., 569 F. Supp. at 995 (defining a local calling area as "those areas, typically combining more than one local exchange, within which subscribers may place telephone calls without paying an extra charge").

<sup>9</sup> While local exchanges have existed from the start of the public telephone system, LATAs came about only after the breakup of AT&T. W. Elec., 569 F. Supp. at 993. In addition to dismantling AT&T's Bell telephone system, the consent decree also entailed a plan of reorganization for the Baby Bells effective January 1, 1984, defining how and where they would operate. Id. at 992, 995 n.11. That reorganization entailed dividing "all Bell territory in the continental United States," consisting of 7,000 local exchanges, into LATAs, contiguous geographic areas, "generally centering upon a city or other identifiable community of interest." Id. at 993-94, 993 n.8 (footnote omitted). Because the LATA boundaries would define what would be intra-LATA and

"the geographic nature of the entire local exchange and LATA paradigm is woven throughout the telecommunications industry."

Starkey explained, in accordance with the case law, that LATAs defined where the regional Bell operating companies, the incumbent local exchange carriers, could operate after divestiture and before Congress opened the local markets to competition in the 1996 Telecommunications Act. After January 1, 1984, and continuing through the period they operated as local monopolies, those local exchange carriers could "engage in exchange telecommunications," that is, send calls between telephones within the same LATA or "provide exchange access within a LATA," i.e., "link a subscriber's telephone to the nearest transmission facility of AT&T" or one of its long-distance competitors such as MCI or Sprint. W. Elec., 569 F. Supp. at 994.

What those incumbent local carriers, like New Jersey Bell, could not do, "because of their local monopoly position," was carry traffic across LATA boundaries. Ibid. As Judge Greene, who entered the consent decree, explained, "[m]ost simply, a LATA marks the boundaries beyond which a Bell Operating Company may not carry telephone calls." Ibid. (footnote omitted). Starkey testified "AT&T got the long lines, the long-distance market," and

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inter-LATA "traffic after reorganization, establishment of the LATAs [was] a necessary predicate to the division of Bell System assets." Id. at 994 n.14.

"[t]he Bell operating companies kept the local exchanges and local toll, but only toll within a LATA." He explained because the final decree didn't allow the Bell operating companies "to carry traffic over a LATA boundary," and "the FCC enforced it," there's been "probably about twenty years of regulation that basically is all about enforcing these LATA boundaries."

New Jersey is divided into three LATAs: 224 — North Jersey, 220 — Atlantic Coastal, and 222 — Delaware Valley.<sup>10</sup> W. Elec., 569 F. Supp. at 1020-21. According to Verizon's 1993 tariff, its 180 local exchange areas are divided among the State's three LATAs as follows:

[t]he Atlantic Coastal LATA encompasses eighteen (18) exchange areas in the southeastern portion of New Jersey; the Delaware Valley LATA encompasses fifty-three (53) exchange areas in the southwestern and west-central portions of New Jersey; and the North Jersey LATA encompasses one hundred and nine (109) exchange areas in the northern and east-central portions of New Jersey.

Starkey explained with reference to public information maintained by the National Exchange Carrier's Association that the Hopewell exchange is in

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<sup>10</sup> "The North Jersey LATA runs from Passaic and Bergen counties in the north to Toms River in the south." W. Elec., 569 F. Supp. at 1021 n.155. "The Delaware Valley LATA includes the counties of Mercer, Burlington, Camden, Salem, Gloucester, and Cumberland, and the western portions of Middlesex, Monmouth, and Ocean counties." Id. at 1021 n.154. The Atlantic Coastal LATA "includes the southern half of Ocean County and the counties of Atlantic and Cape May." Id. at 1021 n.156.

Delaware Valley LATA 222, its location identified by exact Vertical and Horizontal (V&H) coordinates, that Verizon is the incumbent local exchange carrier and that as of January 2008, it assigned to the Hopewell exchange by area code and exchange code, otherwise known as NPA/NXX code, all of exchange codes 466 and 639 (i.e., 609-466-0000 to 466-9999 and 609-639-0000 to 639-9999) and 609/333 numbers 0000-0999, 1000-1999, 8000-8999, 9000-9999.<sup>11</sup> In sum, Starkey maintained local telephone exchanges are documented geographic areas with well-defined boundaries on which the telecommunications industry relies "for numerous network, routing and regulatory purposes," and, consistent with that definition, the Hopewell exchange in LATA 222 is defined, as Verizon has done for many years, by the Hopewell exchange map made a part of its 1993 tariff and 2014 product guide.

Verizon's "internal" expert, Harold E. West, III, recently retired from the company after having started his career at New Jersey Bell before the breakup of the Bell system, testified his "definition of local telephone exchange is a result of thirty-five years of experience working with local telephone exchanges and a synthesis of language contained in [Verizon's] New Jersey

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<sup>11</sup> Stated differently, Verizon was assigned full NPA-NXX blocks of 10,000 telephone numbers for exchange or NXX codes 466 and 639, and 4,000 telephone numbers for NXX code 333, the other 6,000 telephone numbers being assigned or available to other carriers.

tariffs." He maintained a "local telephone exchange is the array of customers that are served by any of the NPA-NXX code combinations that are associated with a particular rate center."

According to West, it is the NPA-NXX code combination that controls the assignment of a line to a specific local telephone exchange. He explained that although there are often numerous NXX codes within a local exchange, "all of the NXX codes are tied into a single rate center." West testified a rate center is "a geographically specific point. . . . defined by these vertical and horizontal coordinates," based on "a grid system developed by AT&T to precisely locate" each one, that is "used to determine mileage between local telephone exchanges and to calculate rates for calls made between local telephone exchanges."<sup>12</sup> According to West, "[t]he local telephone exchange

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<sup>12</sup> West explained the Local Exchange Routing Guide (the LERG) is "a compendium of all the switch information" for every exchange across the country. It provides a list of all the switches, "which carriers operate those switches," and the "NPA-NXX . . . down to the thousands block number, they load in those switches," as well as "what rate centers are associated with those NPA-NXXs." West maintained "[t]he network reflects the information that's in the LERG and it's organized that way so that this call instantaneously from 609-466-1111 will find Jane Q when John Q dials 609-434-1234." West and Starkey agree the LERG is the definitive guide for the routing and rating of calls.

drives from that rate center,"<sup>13</sup> and thus it's the rate center that defines the local exchanges.

West explained "[a]ll the NXX codes that are assigned to [the Hopewell] rate center have customers," and the "array of customers is what comprises the Hopewell local telephone exchange." According to West, "the rate center is a point, it's a regulatory construct. It's there to calculate distance between these two points and to set rates per the tariff. The Hopewell local telephone exchange is a physical thing. It's the array of all these customers."

West explained "there were ten different NPA-NXX code combinations [609-274, -309, -333, -466, -527, -564, -639, -644, -925 and -979] assigned to the Hopewell rate center" as of January 1, 2008, "being used by a total of eleven carriers to provide dial tone and access," only three of which, 609-466,

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<sup>13</sup> West testified the rate centers are not specific to Verizon but define "the local and toll relationships" for all carriers because "the rate centers, the local telephone exchanges and the relationships between them, which ones are local points to one another and which ones are toll points to one another is the same" for all carriers. He explained that even if a customer's calling plan provided unlimited calling for one monthly charge, in essence treating all calls as local, carriers are billing one another for "reciprocal compensation" or "switch access" based on whether the calls are rated as local calls or local toll calls, depending on whether they originate and terminate within a local service area as defined by Verizon's tariff or between local service areas in the same LATA, which is wholly dependent on the NPA-NXX code combinations associated with each rate center. West testified it's the NPA-NXX code combinations associated with each rate center that determine the route and wholesale billing of every call.



-639 and -333 were associated with Verizon. He testified that when New Jersey Bell was the monopoly carrier, its exchange area maps, showing where numbers associated with the particular local telephone exchange were assigned, "were tied solely to New Jersey Bell's NPA-NXX numbers" and thus could accurately reflect where its customers' assigned numbers were located.

West testified Verizon's Hopewell exchange area map, however, had not been updated since 1974, when AT&T built all the local exchange switches and assigned the NXX codes, and New Jersey Bell decided whether a particular customer located near an exchange area boundary would be served by the switch in one local exchange or another — often driven by which exchange offered the easiest route to string wire to reach the customer. West maintained that in 1974, and until the advent of local competition, the maps "were very good representations of the local telephone exchanges," that is "the exchange area map boundaries coincided with the true exchange boundaries — the reach of the NPA-NXXs assigned to the exchange."

West contended, however, that by 2008, "twelve years into local competition," when Neustar was assigning the NPA-NXX codes and CLECs had placed some of their own switches, "of course not duplicating Verizon's network architecture," Verizon's exchange area map boundaries no longer "coincided with the true exchange boundaries — the reach of the NPA-NXXs

assigned to the exchange." He contended that given the age of Verizon's exchange maps and "the increase in competition since deregulation and divestiture, an NPA-NXX and rate center-oriented approach is the only way to accurately reflect the dynamics of today's telecommunications marketplace."

By way of example, West cited the Johnson & Johnson campus in Skillman and the Merrill Lynch complex in Hopewell Township, both of which are served by competitors of Verizon. West maintained the Johnson & Johnson campus and its associated 1,200 listings, although located within the boundaries of Verizon's Hopewell exchange map, was properly excluded from the Hopewell exchange because it is assigned a 908-874 NPA-NXX code not associated with the Hopewell rate center but with the neighboring Belle Mead rate center. Whereas the Merrill Lynch complex in Hopewell Township and its associated 10,000 listings, served by AT&T, was properly included in the Hopewell exchange, although located outside the boundaries of the exchange map, because it was assigned a 609-274 NPA-NXX code associated with the Hopewell rate center.

West testified that treating the Merrill Lynch complex as if in the Pennington local exchange, as Starkey advocated, resulted in a "tariff mismatch" between where the "customer has been placed in this local telephone exchange and the rating of the telephone call" from a Verizon

customer outside the Hopewell local service area, in Ewing, for instance "to that AT&T Pennington customer," i.e., Merrill Lynch. West explained if Merrill Lynch is considered in the Pennington exchange as Starkey asserted, then Verizon should expect to pay AT&T only a reciprocal charge of "a tenth of a penny per minute" for the call placed by a Verizon customer in Ewing. But because "the network keys off of the 274" exchange code associated with the Hopewell exchange, it "recognizes this as a toll call and AT&T bills [Verizon] a penny a minute, because the network recognizes it as a toll call not a local call, so AT&T bills switch access not reciprocal compensation."

West testified placing Merrill Lynch in the Pennington exchange instead of the Hopewell exchange based on Verizon's old tariff map would result in "two mismatches going on between how these calls are actually rated, as they flow through the network and how they appear in the tariff with respect to their local telephone exchange designations." He claimed if one instead "adopt[ed] a more dynamic definition of local telephone exchange," relying "on the NPA-NXXs that are assigned to the relevant rate center, you don't run into this problem." West explained

the cleanest way to avoid mismatches between tariff expectation and the actual way a call is rated, both at the retail level and the wholesale level is to use — I don't want to say I invented it, but that use the definition of local telephone exchange that I advocated and explained in my expert report.

On cross-examination, West was forced to admit he could cite no authority for his definition of a local telephone exchange, and Verizon's 1993 tariff did not employ it but instead defined basic exchange service as "telecommunication service furnished to individual line business and residence customers within a specified geographical area." He was also forced to acknowledge a customer living in Trenton or Atlantic City to whom a competitor like AT&T had assigned a telephone number from one of the ten Hopewell NPA-NXX codes "would be picked up in [his] definition as being part of the Hopewell local telephone exchange."

Using his definition of local exchange as "the array of customers that are served by any of the NPA-NXX code combinations . . . associated with a particular rate center," West calculated Verizon only provided dial tone and access to 47.9% of the Hopewell local telephone exchange as of the January 1, 2008 assessment date. Relying on Verizon's Access Line Reporting and Forecasting System (ALRFS), West testified Verizon had 5,134<sup>14</sup> residential lines and 1,534 business lines for a total of 6,668 lines in the Hopewell exchange as of the end of 2007.

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<sup>14</sup> West included in that number three residential lines serviced by MCI because MCI had merged with Verizon in 2006.

West used the E911 database to calculate the number of telephone listings the CLECs maintained in the Hopewell exchange. He testified Verizon's competitors had 728 residential listings and 10,372 business listings, including the 10,000 listings assigned to the Merrill Lynch complex, for a total of 11,100 E911 listings in the Hopewell exchange as of the end of 2007.

All the experts agreed there is not a one-to-one relationship between business listings and lines in the E911 database as there generally is with residential lines. West testified most residential customers have only one or perhaps two telephone lines, and those lines are ordered separately with each having a listing in the E911 database. He explained "[t]here's no equipment for a [home] that would tie those residential lines together, so they very much act independently, which means the listings to line relationship is one-to-one." West testified the same is not true for "high end business lines."

West explained large businesses often have sophisticated equipment on the premises, such as a private branch exchange or PBX, to service their internal communications. Each person who has a telephone will have a listing in the E911 database but not a dedicated line to the switch. PBX equipment allows a business to use fewer phone lines by splitting those lines into multiple private extensions, thereby allowing the customer to save a large amount of money by reducing the number of access lines it needs to purchase. Because

there are fewer access lines than listings, West explained one would need "to convert those listings" to achieve "a meaningful line count." He referred to that conversion as a "business line to listing ratio, BLLR."

In order to convert the CLEC listings in the E911 database to lines, West used Verizon's own statewide ratio of business lines to listings of 0.63. West multiplied the 10,372 CLEC business listings, including the 10,000 Merrill Lynch listings he included in the Hopewell exchange, by Verizon's 0.63 lines to listings ratio, yielding 6,534 CLEC business lines. He then added the 6,534 business lines to the 728 residential lines for total CLEC lines of 7,262.

Adding the 7,262 CLEC lines to Verizon's 6,668 lines, West concluded there were 13,930 lines in the Hopewell Exchange as of January 1, 2008, 6,668 of which belonged to Verizon, thus giving it a 47.9% share of the exchange as of the assessment date.

Verizon also presented the testimony of an "outside" expert, Nicholas Vantzelfde, head of a "global strategy consulting firm" working "exclusively in telecommunications," including "quantifying market opportunity [and] relative market share of competitors within designated geographies."

Vantzelfde testified the term "local telephone exchange" was a "highly nuanced" term of art within the telecommunications industry, agreeing with West it was "essentially . . . a group of customers that are assigned a specific

set of NPA-NXX codes that are attached to a rate center." He testified that "Neustar assigns numbering codes to rate centers. Those rate centers have customers associated with them. Those customers are part of that exchange associated with the rate center and ultimately, it doesn't matter where those customers are, it is what their phone numbers are."<sup>15</sup>

In addition to endorsing West's definition of a local telephone exchange, Vantzelfde agreed with West's business lines to listing ratio, which Vantzelfde referred to as "an active line conversion factor." Vantzelfde, however, performed his "own analysis to estimate the total market lines" within the Hopewell exchange not relying on the E911 database. He explained he "took the specific demographics" and what he called "firmographics," a term he testified he didn't "think [he] invented" but doesn't "hear many other people use" to define the "unique characteristics of the businesses within a given area" and used "that to build up [his] estimate of market lines" in the Hopewell exchange.

Vantzelfde explained that instead of "taking Verizon lines and estimating competitor lines" as West did, he estimated "how many lines the

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<sup>15</sup> After hearing this testimony repeated by Verizon's experts in rebuttal, Judge Brennan asked West whether Neustar was the entity now defining New Jersey's local telephone exchanges. He responded "Neustar is the one that is making a determination about the rate center that this code is associated with."

entire market buys. And so, we're calculating how many phone lines we think all of the households have and we're calculating how many phone lines all of the businesses have" using publicly available data from sources including the U.S. Census Bureau, Nielsen, the CDC and the Pew Research Center.

Vantzelfde explained he used "very specific information about the types of households that are part of the Hopewell local telephone exchange and the types of businesses that are part of the Hopewell telephone exchange," including the industry they were in, "how many employees they have, and other relevant factors" he'd found over the course of "several decades in this business to be very good predictors of the number of voice lines" those businesses would have.

Vantzelfde testified that "for as much as we talked about the fact that maps aren't perfectly relevant for this case, [he] still needed to use a map to do [his] analysis." Specifically, he explained based on his "experience in these cases," that he could "take the geographic representation or approximation of Verizon's service area and . . . calculate the specific firmographics and demographics in that area." Vantzelfde explained that "Verizon knows where its boundaries are," although "[i]t doesn't necessarily know where the CLECs' customers and boundaries of exchanges are." He testified, however, that what his "experience has been is that the geography is a fair representation" of the



local exchange — "sometimes there are customers located in that geography that are part of a different exchange" — "[s]ometimes there are customers located outside of that approximate boundary that are actually part of that exchange." But, he claimed "those tend to balance out with the exception that you need to care for, very specifically, large businesses," such as Johnson & Johnson and Merrill Lynch here.

Vantzelfde testified that there were 4,767 households "within the Hopewell local telephone exchange," and, using demographic characteristics such as age, ethnicity and education, he estimated 12.8% of them had no landline, meaning there were 4,157 voice lines in the exchange as of the January 1, 2008 assessment date. Using the same demographic data, he estimated there were 184 dial-up and 1,052 other secondary access lines in the Hopewell exchange for a total of 5,393 residential lines, 4,597 of which belonged to Verizon according to West's count, giving Verizon 85.2% of the residential market.

Turning to the business lines, Vantzelfde testified he relied on InfoUSA, which sells information on businesses by zip code, which allows him "to see every business, and where they're located, what they do, how many employees do they have." Vantzelfde testified the information he requests from InfoUSA is "over-inclusive," meaning he "make[s] sure we not only include zip codes

that are within the approximate boundary of the Hopewell local exchange that we got [from] Verizon, but also cover the surrounding area."

Vantzelfde again explained "in general, in [his] experience, . . . there's some small businesses or a subset of businesses that are located within the geographic boundary that are actually part of a different exchange, and another subset of businesses that are located outside of that approximate boundary and part of the Hopewell exchange," expressing the view that "those tend to balance out, except for very large businesses." He testified he geotags "each business, whether it's in or out of that approximate geographic boundary, and then we find the big businesses and we make sure that we appropriately care for those as based on their phone number whether they're in or out of an exchange."

Vantzelfde explained the Merrill Lynch complex, for example, with "5,600 employees or so, . . . was located outside of the approximate geographic . . . boundary of Verizon's customers, but it's part of the exchange." He testified the Merrill Lynch complex was "one that we had to make sure that when we went through our geotagging . . . that it actually counts as part of the local telephone exchange." Vantzelfde testified the same was "true with Johnson & Johnson, that is one that is physically located within Verizon's

approximate boundary of its customers, but it's not part of the exchange. It is a different set of telephone numbers that is served [by] . . . Embarq."

Vantzelfde testified that once he isolated the businesses he thought appropriately included in the local exchange, he applied his proprietary model, which he explained was "a little bit how [he's] made [his] career is coming up with this," taking "every type of business and how many employees we have that exist at that location and we categorize them" by their "relative communications needs" and from that "calculated how many [telephone] lines we think they have at that location." Applying his model, Vantzelfde estimated there were 7,818 business lines in the Hopewell local telephone exchange, 250 fewer lines than Verizon estimated in its analysis using the E911 database.

Vantzelfde tested his model using data collected by the FCC on a statewide basis. Every local exchange company in the country — the ILECs and the CLECs — is required to report the actual number of access lines it serves per state twice a year. The FCC uses the data to calculate the market share of the ILECs, thereby monitoring the success of competition in the local markets. The FCC publishes the data annually in its "Local Telephone Competition Reports." See Verizon II, 31 N.J. Tax at 66 n.13 (describing the reports).

Vantzelfde testified that allocating the total number of business access lines statewide, based on FCC data, to Hopewell and its 0.3% share of the State's employees, yields 6,402 business access lines, 18.1% less (1,416 fewer business lines) than his model predicts. In his report, Vantzelfde attributed the difference solely to the presence of Merrill Lynch, "a large, communications-intensive business," having "an above-average number of lines per employee" in the Hopewell local exchange.

At trial, Vantzelfde testified there was "a pretty simple explanation" for the difference between his model and a straightforward calculation based on FCC and employee data. He explained "if you look at the types of businesses that are in Hopewell, they tend to either be . . . relatively small or very large, but highly telecom intensive." He explained "small businesses tend to have more phone lines per employee than large businesses." Because there were more small businesses in the Hopewell exchange, Vantzelfde contended "they should get an over-allocation of phone lines per employee." He added the exchange also has "one very important highly telecom intensive business which is the Merrill Lynch campus that also drives that figure to be higher than a straight employee allocation."

According to Vantzelfde's model, Verizon had 15.7% of the business lines in the Hopewell exchange as of the assessment date, a half percentage

point less than West calculated. Adding the 7,818 estimated business lines to the 5,393 residential lines Vantzelfde estimated were in the exchange based on demographic data, Vantzelfde testified that in his opinion there were 13,211 total lines in the Hopewell exchange. Comparing that estimate to his count of Verizon's lines, 5,823 (845 fewer lines than West counted), Vantzelfde concluded Verizon had a 44.1% market share in the Hopewell local telephone exchange, almost four percentage points less than West's estimate. On cross-examination, Vantzelfde conceded if Merrill Lynch "was determined to be not part of the exchange then Verizon would have more than 51 percent" of the market according to his model.

Hopewell's expert Starkey testified that while West and Vantzelfde claimed Verizon had less than a 51% market share in the Hopewell local telephone exchange as of the January 1, 2008 assessment date, the FCC put the ILEC market share for the entire State of New Jersey, which Verizon dominated, at 82.8% at the end of 2007. Starkey acknowledged the FCC data is statewide, included the State's two other incumbent local carriers with their 4% of the market, and because it's based on information from the carriers, didn't require resort to the E911 database and a conversion of listings to dial tone and access lines employing a "business lines to listing ratio." Nevertheless, he testified those factors did not adequately account for so

substantial a difference between West's estimate that Verizon had 47.9% of dial tone and access of the Hopewell local exchange, and the FCC's finding that Verizon still had 82.8% of the local market statewide.<sup>16</sup>

Starkey insisted the FCC's data was "the most reliable information we have in the case," because it came directly from Verizon and its competitors, whom the FCC required provide a detailed certification of their statewide line counts twice each year. Starkey testified Verizon's numbers differed so substantially from the FCC's for two reasons: Verizon incorrectly defined the local telephone exchange and the BLLR it applied to its competitors' listings in the E911 database was faulty.

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<sup>16</sup> Starkey rejected Vantzelfde's 44.1% market share for Verizon because Vantzelfde not only excluded from Verizon's line count the three residential MCI lines West included based on MCI having been part of Verizon for two years as of the assessment date, but also the 842 resale and wholesale lines West specifically included in his Verizon line count. West explained he included access lines Verizon sold to CLECs for resale to their customers in Verizon's line count because "in terms of market share, what we're calculating here is who is providing the underlying facility. In the case of the resale and the Wholesale Advantage, we do that but we don't face the customer," in other words, "Verizon switching is involved in both of those lines." Vantzelfde excluded those 845 lines from Verizon's total, reflecting them as CLEC lines. Re-running Vantzelfde's calculations with those lines shifted to Verizon, Starkey concluded Vantzelfde's model "yields a notably higher market share for Verizon than did Verizon's initial calculations — i.e., 6,668 Verizon lines / 13,211 market lines equals 50.47%" — without accounting for Merrill Lynch's placement, erroneously in Starkey's opinion, in the Hopewell exchange.

Specifically, Starkey asserted West and Vantzelfde defined the Hopewell local exchange in a way that allows them to "grab that Merrill Lynch facility, which is clearly outside the boundaries" of the exchange "and include it in their analysis because if you take that Merrill Lynch facility out, if you take those roughly 5,600 employees and their access lines out of the analysis, . . . it's obvious" Verizon serves "more than 51 percent in the Hopewell local telephone exchange." Starkey contended "[t]hat is a key reason why Hopewell appears to be so different than the state average." Starkey noted West relied on his own experience for his definition of a local telephone exchange, could cite no other authority for it, and Verizon never used West's definition in its tariff or product guide, or anywhere else for that matter.

According to Starkey, excluding Merrill Lynch and leaving everything else in West's analysis the same resulted in Verizon having an 87.4% market share of the Hopewell Exchange, much closer to the FCC's assessment of Verizon's 82.8% share of the local market statewide.

The other reason for the large discrepancy between West's assessment of Verizon's share of the Hopewell exchange and the FCC's assessment of Verizon's share of the local market statewide, in Starkey's view, was West's decision to apply Verizon's own business lines to listing ratio to its competitors' businesses. Verizon calculated its BLLR by taking Verizon's

business listings statewide from the E911 database, divided by the company's total number of business lines statewide. Starkey testified "that gives us a good sense . . . of how many listings [Verizon] has per line, but it really doesn't tell us very much about competitors because their business model, the way in which they approach the market is very different."

Starkey testified Verizon's competitors such as AT&T, "don't go into a market to try to serve one and two-line businesses." He claimed "[t]hey're out for the Merrill Lynch's" or at least the Johnson & Johnson-size campus, especially during the 2008-time frame because they were employing different technology than Verizon's built-out copper wire network. Starkey testified Verizon's competitors in the local market were deploying fiber optic cable, which "isn't economically viable for one- and two-line businesses." Starkey testified that because of their different approach to the market, the CLECs' ratio of telephone listings to lines was "very different" from "what you would see for Verizon" and applying Verizon's own lines to listings ratio to the disparate business model of its competitors was "another way in which Verizon overstates competitor market share and understates its own market share in the analysis."

Explaining what he perceived to be the two main errors in Verizon's market share analysis in greater detail, Starkey testified he agreed with West



about rate centers, how Verizon built out its network, how telephone numbers were not formerly assigned outside the geographic area of the rate center with which they were associated and how "[a]ll of that has changed dramatically over time" with local competition. West maintained, however, that "[w]hat doesn't change is the definition of a local telephone exchange."

Starkey explained that while Verizon maintains one or more switches in each exchange in which it's loaded the Verizon NPA-NXX codes associated with the exchange's rate center, CLECs do not operate in the same fashion. Starkey testified, and West acknowledged, that AT&T, for example, has not replicated Verizon's network with a switch in every exchange.<sup>17</sup> Instead,

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<sup>17</sup> Starkey explained:

The way the telephone system works is, if I make a call from Missouri to someone in Hopewell and they have a 609-274-1111 number, it looks at the first three digits and it says, okay, what area code is that going to? It's going to 609. That's New Jersey. All right? So, I'll send it to the closest switch I have nearest to New Jersey. Now, what's the 274? That's the central office code, the NXX, . . . which central office is assigned that code and as we saw from the LERG, the Local Exchange Routing Guide, it has all that information listed and it — the LERG will tell you, okay, 274 — this isn't the case here but I'm just using it as an example — 274 sits in this Verizon switch in Hopewell. So, I'm going to send the call there. It's then Verizon's job to say, okay, what are the last four digits? The last four digits are 1111. In my records, I

AT&T deploys far fewer switches serving much larger geographic areas, which it's able to do because it relies on fiber optic cable that can carry signals much farther than the copper wire of Verizon's legacy local exchange networks.

West and Starkey agreed the 10,000 block of 609-274 numbers AT&T assigned to Merrill Lynch is served out of AT&T's switch in Camden. While West testified Verizon, as a matter of "a mixture of policy and actual network design," would not permit a landline customer moving from Hopewell to another exchange to keep her 609-466-XXX number, because the company "doesn't like to mix and match [NPA-NXX] codes," he acknowledged "that's a Verizon thing. It's not a CLEC thing." Starkey testified Verizon's competitors, such as AT&T, have no such qualms "because it knows that it can assign numbers anywhere it wants on its network without regard to the local telephone exchange." Starkey testified "[t]he bottom line is the telephone numbers have no significance in today's telecommunications environment relative to location."

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know that 1111 is Customer A. So, I'll extend the call from there. So, each one of these switches into each one of these exchanges for Verizon is going to have NPA-NXX codes, resident programed into that switch. AT&T on the other hand is going to have all of its numbers in its big switch and it can assign them anywhere it wants across this region.

When asked by Judge Brennan whether that meant the CLECs didn't have local exchanges, Starkey responded by saying that Verizon's local exchange map in its tariff represents "the local telephone exchange for everybody. If . . . someone says what's the Hopewell local exchange? They'll say, I need to see the map. . . . [A]re you asking me what geographic region does it cover? I need to see the map."

When the judge followed up by asking how then "do you measure AT&T's or any CLEC's presence within any specific local telephone exchange," Starkey responded "[t]he address of where the facility is terminated. The access line address," which is readily available in the E911 database. Starkey acknowledged West was correct that "[t]he way the network knows whether [a call is] a toll call or a local call is it looks at the rate centers," but he claimed "that doesn't have anything to do with where your access line is going to be . . . or your service address is." Starkey insisted "[t]hat's going to be based on [the customer's] . . . service address associated with the dial tone and access line facility to service the line."

Starkey testified the geographic boundaries of the local exchanges continued to be important to Verizon after the advent of local competition as evidenced by its inclusion of its local exchange maps in its 1993 tariff and 2014 product guide and that it defined a local exchange with reference to

territorial boundaries in both documents. He maintained that Verizon is the incumbent local exchange carrier responsible for the Hopewell exchange, "but the exchange is an industry geography, an industry building block that we all use."

Starkey drove home that point by calling attention to Vantzelfde's self-acknowledged need to use the geographical boundaries of Verizon's Hopewell exchange to conduct his analysis of Verizon's market share. Starkey testified that although Vantzelfde claimed that "[l]ocal exchanges are not easily defined by a specific geographic boundary," his own analysis refutes that statement because "he relied on a very specific geographic boundary and then made two exceptions" for Merrill Lynch and Johnson & Johnson.

Starkey also testified the geographic boundaries of the local exchanges were important for circumscribing the area where an incumbent local exchange carrier such as Verizon had "carrier of last resort obligations." See N.J.S.A. 48:2-23. Starkey explained if someone were to build a house in a less-inhabited area of a local exchange with no nearby wireline facility, a CLEC is free to decline service because its facilities don't reach the customer. An incumbent, however, is required to provide wireline service to anyone seeking service in its local exchange, building out a new wireline facility if necessary. Starkey testified Verizon, however, "is only required to do that if you are in

one of their exchanges," thus the geographic boundaries of a local exchange are important for defining the company's carrier of last resort obligations.

Finally, Starkey emphasized how large an impact including the Merrill Lynch facility in the Hopewell exchange had on Verizon's market share. Starkey noted West calculated there were 10,372 CLEC business listings in the Hopewell exchange; 10,000 of those listings were for the Merrill Lynch facility.<sup>18</sup> Starkey testified "you can imagine what it does to the calculation if you take out that number. It is the only thing that really matters at the end of the day in the analysis because it dictates that [Verizon] serve[s] far more than 51%, really closer to 85%," or precisely 87.37% if Merrill Lynch is excluded from West's calculation.

Starkey ran the calculation excluding Merrill Lynch but including Johnson & Johnson's 1,200 listings. He testified that when you include Johnson & Johnson's 1,200 listings in the Hopewell exchange and apply Verizon's 0.63 business lines to listings ratio, Verizon still has 79.5% of the market as of the January 1, 2008 assessment date, again, much closer to the FCC's assessment of Verizon's 82.8% of the local market statewide. He testified that running the calculation without a BLLR, thus assuming a one-to-

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<sup>18</sup> Actually 9,997 or 9,998 of the 10,000 block of 609-274 numbers. Starkey explained carriers always hold a few numbers back from any 10,000-block assignment for routing and administrative purposes.

one ratio between Johnson & Johnson's 1,200 listings and access lines, which almost certainly vastly overstates the number of access lines the facility employs, results in Verizon having a 75.5% share of the Hopewell local exchange as of the assessment date.

As already noted, Starkey testified that in addition to erroneously including the Merrill Lynch facility in the Hopewell exchange, Verizon's market share analysis is flawed by employing its own business lines to listing ratio to its competitors' listings. Starkey explained Verizon inherited a copper network, and "there's only so far you could push a signal from the central office switch out on copper before it became so weak you couldn't hear it anymore."

Although noting "it depends on a lot of different circumstances," Starkey estimated the "engineering reality" is that a carrier could generally extend a copper wire for only approximately 20,000 feet and maintain acceptable sound quality. While acknowledging the network could be supplemented with fiber optic cable, Starkey testified the limitations of "how far they [could] push [copper]" when the Bell System "built these exchanges and they built these networks" explains these exchange boundaries and why "there's 180 of them in Verizon's territory in New Jersey in large part."

Starkey testified that by the time the CLECs entered the local market, "technology had changed somewhat dramatically." Because fiber optic cable was more available, the CLECs "could build networks that extended miles, 20 miles, 100 miles depending on how they built it." He testified "AT&T puts a switch in Camden and then serves entire portions of New Jersey and perhaps the entirety of New Jersey with that single switch. It does that with fiber optic cable that it extends and generally puts into buildings or large campuses." According to Starkey, "[t]hat's what its business model is." He claimed AT&T is "not looking to serve your barber shop . . . or your salon that has one line. It's looking for somebody who has 1,000 lines, 5,000 lines, 10,000 lines to substantiate the investment it has to make in fiber associated with reaching those places."

According to Starkey, that business model makes applying Verizon's business lines to listing ratio to the CLECs inappropriate. Starkey testified Verizon, because it is the incumbent local exchange carrier and the carrier of last resort "is going to have a lot of those single-line businesses. Competitors are not." Using the digital GIS (geographic information system) mapping coordinates Verizon provided to Vantzelfde defining the Hopewell local telephone exchange and the E911 data, Starkey was able to plot the dial tone and access lines Verizon included in its market share analysis. The graphic

bears out that Verizon provides dial tone and access to many more small customers than its competitors in the Hopewell exchange. A fact Verizon's experts did not dispute.

Starkey concluded Verizon's competitors, on average, are going to have "substantially" "fewer lines per number [listing] than Verizon,"<sup>19</sup> making Verizon's lines to listing ratio higher than what a CLEC's BLLR would be. Starkey explained Verizon's 0.63 BLLR means Verizon calculates a business customer with 100 telephone numbers listed in the E911 database will have 63 corresponding business access lines. He testified that number is roughly four times higher than the "trunk equivalency tables" the company has published in other parts of the country to estimate the number of dial tone access lines serving a PBX.<sup>20</sup> Those tables assume only 16 access lines would be needed for a PBX customer with 100 telephones, and thus 100 listings in the E911 database, resulting in a BLLR of 0.16 — not 0.63, and also much higher than

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<sup>19</sup> Vantzelfde made essentially the same point in his testimony explaining why the higher number of small businesses in the Hopewell exchange results in "an over-allocation of phone lines per employee" as compared to a statewide average.

<sup>20</sup> Starkey explained "dial tone access lines serving PBXs are referred to as 'trunks' because they connect the Verizon switch and a private switch — e.g., the customer's private branch exchange — PBX."



the FCC's standard for estimating the average number of stations or telephones per line for PBX service, which is 9.

Starkey testified Verizon's error in applying its own BLLR to its competitors' customers without accounting for the CLECs' business model of seeking out "the largest and most lucrative customers" in a local market, i.e., "cherry-picking" or "skimming," is well illustrated in Verizon's treatment of the Merrill Lynch complex. Assuming for purposes of argument that it was within the Hopewell local exchange, a point Starkey disputed, he noted that applying Verizon's 0.63 BLLR to Merrill Lynch's 10,000 block of numbers resulted in attributing 6,298 lines to the complex, which is likely a significant overstatement of its access lines given both parties agree Merrill Lynch had only 5,600 employees there as of the January 1, 2008 access date.<sup>21</sup>

Starkey further claimed Verizon's application of its 0.63 business lines to listings ratio to its competitors' listings, which he claimed overestimates competitor lines as in the Merrill Lynch example, has a disproportionate impact on its market share analysis because "the vast majority of competitor lines are business lines while the vast majority of Verizon lines are residential

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<sup>21</sup> Starkey buttressed his point with reference to comments AT&T filed in an unrelated matter with the FCC, assailing the use of E911 data to determine its market share in a local exchange based on its likely effect of overstating the number of access lines of its largest customers.

lines." Starkey contended "[t]hat means that to the extent Verizon's 'Business Lines-to-Listings Ratio' overstates the number of dial tone access lines per listing, it has a tendency to substantially increase Verizon's competitors' lines versus its own lines."

### Judge Brennan's Decision

After hearing the testimony of the parties' experts over three full days of trial, Judge Brennan determined Hopewell's understanding of a "local telephone exchange" was more aligned with the Legislature's intent in N.J.S.A. 54:4-1 than Verizon's understanding of the term. She reasoned:

Although not defined in N.J.S.A. 54:4-1, the term "local telephone exchange" is a common and historical concept in the telecommunications industry. It is a geographically defined area serviced by a physical construct that functions as the building block for service delivery, call routing and the regulatory infrastructure that has dominated the telecommunications industry for decades.

[Verizon II, 31 N.J. Tax at 74.]

Judge Brennan further found that "Verizon's tariff maps are publicly available and define with specificity the boundaries of its Hopewell Telephone Exchange," and "[t]hat the business personal property being taxed is physically located within the boundaries of the exchange bearing its name demonstrates a geographic component to the definition of a 'local telephone exchange.'" Id. at

74-75. That "connection to a geographically identifiable area also serves as a foundation for the boundaries of competition and the LATA system," and employing "a geographic definition permits the usage of public and transparent data sources when calculating market share, such as data from the FCC, United States Census Bureau, Nielsen, PEW, and InfoUSA." Id. at 75. Finally, Judge Brennan found the court's interpretation of the phrase "local telephone exchange" in N.J.S.A. 54:4-1 was consistent with the Supreme Court's 2002 description of a "local exchange" in Verizon Communications, 535 U.S. at 489-90. Ibid.

Because there was no dispute that Verizon provided dial tone and access to more than 51% of the Hopewell local telephone exchange as of the January 1, 2008 assessment date, defined in accordance with the territorial boundaries of Verizon's tariff exchange map, thereby excluding the Merrill Lynch complex, the Tax Court entered judgment after trial to Hopewell, affirming imposition of the tax under N.J.S.A. 54:4-1 for tax year 2009. Id. at 75-76.

#### Verizon's Appeal From the Final Judgment

Verizon appeals, reprising its arguments to the trial court as to the meaning of the statutory phrase "local telephone exchange" and adding that the

Tax Court's adoption of a "geography-based test for the 51% threshold" created "an unworkable test that cannot be applied without rendering N.J.S.A. 54:4-1 fatally ambiguous." Verizon further argues the Tax Court erred by failing to properly evaluate the expert testimony and concluding Verizon bore the ultimate burden of proof; by accepting Hopewell's definition of a local telephone exchange and rejecting the "definition offered by the industry leader, Verizon"; by failing to adopt "the methodology and calculations of Verizon's experts" for measuring the 51% threshold and accepting the "net opinion" offered by Hopewell's expert; and by failing to consider "the practicality of implementing its holding or providing guidance to future litigants on how to calculate the 51% threshold." We reject its arguments because we agree with Judge Brennan that "local telephone exchange" as used in N.J.S.A. 54:4-1 means a local telephone network within a defined geographical area as depicted on Verizon's tariff exchange maps.

### Our Analysis

The scope of appellate review of a Tax Court decision after trial "is the same as that applicable to a non-jury determination of any other trial court." Yilmaz, Inc. v. Dir., Div. of Tax'n, 390 N.J. Super. 435, 443 (App. Div. 2007). "The 'court's interpretation of the law and the legal consequences that flow

from established facts are not entitled to any special deference,'" and "[w]e apply a de novo review to a trial judge's legal conclusions." City of Newark v. Twp. of Jefferson, 466 N.J. Super. 173, 180 (App. Div. 2021) (quoting Manalapan Realty, LP v. Twp. Comm. of Manalapan, 140 N.J. 366, 378 (1995)). Statutory interpretation, of course, is always a "question of law subject to de novo review" on appeal. Saccone v. Bd. of Trs. of Police & Firemen's Ret. Sys., 219 N.J. 369, 380 (2014).

A court faced with having to interpret a statute is to apply the tools of statutory interpretation to "effectuat[e] the legislative plan as it may be gathered from the enactment read in full light of its history, purpose and context." Koch v. Dir., Div. of Tax'n, 157 N.J. 1, 7 (1999) (quoting State v. Haliski, 140 N.J. 1, 9 (1995)). We begin with the statute's language, ascribing to the "words their ordinary meaning and significance," DiProspero v. Penn, 183 N.J. 477, 492 (2005), that is "unless the Legislature has used technical terms, or terms of art," Marino v. Marino, 200 N.J. 315, 329 (2009), "which are construed 'in accordance with those meanings,'" Praxair Tech., Inc. v. Dir., Div. of Tax'n, 201 N.J. 126, 136 (2009) (quoting In re Lead Paint Litig., 191 N.J. 405, 430 (2007)). See 2A Norman J. Singer, Sutherland Statutory Construction §§ 47:29, 47:30 (6th ed. 2002); N.J.S.A. 1:1-1 ("Technical words

and phrases . . . shall be construed in accordance with such technical or special and accepted meaning.").

Although we would normally note here our acknowledgment of the Tax Court's expertise in explaining why we will not disturb its factual findings "unless they are plainly arbitrary or there is a lack of substantial evidence to support them," Yilmaz, 390 N.J. Super. at 443 (quoting Alpine Country Club v. Borough of Demarest, 354 N.J. Super. 387, 390 (App. Div. 2002)), we need not do so here as this was not an ordinary Tax Court trial. Verizon was not challenging the assessor's valuation of its property in the Borough or the amount of the tax the Borough imposed.

This trial, consisting only of the testimony of three telecommunications industry experts, was geared almost entirely to assisting the court in understanding the meaning their industry gives to "local telephone exchange," the term of art the legislature employed in N.J.S.A. 54:4-1, and how to determine whether Verizon provided dial tone and access to 51% of the Hopewell exchange, which in this particular case rested entirely on the meaning ascribed to "local telephone exchange." The court, in essence, held a trial to primarily decide a legal issue, which when decided left no factual questions to resolve.

Thus, we turn to consider how a court goes about interpreting a term of art.<sup>22</sup> In Norfolk Southern Railway Co. v. Intermodal Properties, LLC, 215 N.J. 142, 147 (2013), a case involving the eminent domain powers of a railroad, our Supreme Court has provided us a good model. The question for the Court, as it relates here, was "whether the railroad demonstrated that the taking of defendant's property was occasioned by the 'exigencies of business' within the meaning of that phrase as it is used in the statute that governs takings by railroads." Ibid. (quoting N.J.S.A. 48:12-35.1).

The particulars of the case are not as important as the Court's approach to determining the Legislature's understanding of the term. Rejecting the condemnee's contention that the language required urgent or emergent circumstances, we'd adopted the administrative law judge's dictionary definition of "exigency," understanding the phrase to mean "'the need, demand, or requirement intrinsic to a circumstance, [or] condition' such as 'the exigencies of city life[.]'" Id. at 157 (quoting Random House Webster's Unabridged Dictionary (2d ed. 2006)). Employing the standard tools of

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<sup>22</sup> There can be little doubt the statutory phrase "local telephone exchange" is a term of art. The dictionary definitions of the term tend to focus on the building housing the switch and not the physical manifestation of the exchange network implied in the statute. See, e.g., Webster's Third New International Dictionary 2350 (1993) (defining "telephone exchange" as "a central office in which the wires of telephones may be connected to permit conversation").

statutory construction, we were convinced "the Legislature did not intend to limit the exercise of the condemnation power in N.J.S.A. 48:12-35.1 to emergency situations," largely based on how long it took a railroad to condemn property and comply with the statute's other requirements, which implied to us the Legislature did not intend the railroad to have to demonstrate an urgent need for the property. Id. at 157-58.

Although affirming our decision, the Court rejected our approach to interpreting the statutory phrase, "exigencies of business." Id. at 166-67. Writing for the Court, Justice Hoens acknowledged we'd relied on a dictionary providing a definition "that apparently fits the overall statutory intent," but noted it wasn't the only dictionary, and others "define exigency in terms of 'a state of affairs that makes urgent demands[,] or as a 'state of urgency; a situation requiring immediate action.'" Id. at 167 (internal citation omitted) (first quoting Webster's Ninth New Collegiate Dictionary 435 (1985); and then quoting Black's Law Dictionary 655 (9th ed. 2009)).

The existence of conflicting "modern day definitions," which "are inconsistent and lead to contrary conclusions," impelled the Court to conduct its own interpretation of the statutory language, charting "a somewhat different course." Ibid. Justice Hoens wrote that "modern understandings of words or phrases may not be appropriate guides in statutory interpretation, particularly



if a statute was crafted decades in the past," or "uses a term of art," requiring a construction in accordance with that meaning. Id. at 167-68. Because the phrase "exigencies of business" found in N.J.S.A. 48:12-35.1 was "not one of recent vintage, but has deep roots in predecessor statutes governing the formation of railroads and the creation of their routes," the Court looked to where the phrase first appeared in a statute related to railroads in the 1870s and traced the phrase forward through different statutes, drawing guidance from court cases interpreting it. Id. at 168-72.

That review allowed the Court to conclude that "when courts have been called upon to interpret the meaning of the phrase 'exigencies of business' in the past, it has been regarded as a term of art," and "understood to describe generally the needs of business, or the ordinary course of business, rather than to allude to an emergent, urgent, immediate, or pressing need." Id. at 173. The Court found it was "the influence of our modern jurisprudence in the criminal context that has imbued the term with those notions." Ibid. The Court concluded, "as [it] must, that the Legislature meant the phrase 'exigencies of business' to be understood in accordance with the way in which it was used at the time when the language was chosen." Ibid.

The Court further found "that understanding of the phrase is the most sensible one when considering the way in which railroads operate." Ibid.

Justice Hoens wrote: "Simply put, demanding that the railroad demonstrate that there is an urgency or an immediacy that motivates its exercise of eminent domain to acquire a tract of land, as [the condemnee] suggests, would require us to close our eyes to the reality of how railroads are developed and built."

Ibid. Thus, the Court could "detect no basis on which to conclude that the Legislature intended to demand that railroads prove urgency, immediacy or emergency of their need for land as a prerequisite to exercising their statutory condemnation power." Ibid.

Applying the Court's method and insights in Norfolk Southern to this matter, we return to the history of the telephone companies and New Jersey's approach to taxing them offered in the first pages of this opinion. Although "local telephone exchange" does not have the century-long history in our statutes as "exigencies of business," having only first appeared in 1989, that appearance is nevertheless significant because it was only five years after the break-up of AT&T. Indeed, Judge Menyuk noted "the enactment of L. 1989, c. 2, which amended N.J.S.A. 54:4-1," as well as several other statutes, was the first reflection in the tax statutes of "[t]he changes to the telecommunications industry following divestiture." Verizon I, 26 N.J. Tax at 412. See Sponsor's Statement to A. 135 (pre-filed for introduction in the 1988 session) ("The purpose of this bill is to restructure the method of taxing the

telecommunications industry in New Jersey to reflect the dramatic changes, both technological and structural, that have occurred in that industry.").

The 1989 amendment to N.J.S.A. 54:4-1, which since 1966<sup>23</sup> had defined the "[p]ersonal property taxable under this chapter" to include "the tangible goods and chattels, exclusive of inventories, used in business of telephone . . . companies" subject to Chapter 4 of the Franchise and Gross Receipts Tax, added the qualifier "local exchange" to "telephone companies" and defined a "local exchange telephone company," as "a telecommunications carrier providing dial tone and access to substantially all of a local telephone exchange." See L. 1989, c. 2, § 4.

The purpose of the amendment, as Judge Menyuk found, was to reflect the new reality of the break-up of AT&T and the Bell System: there was no longer essentially only one telephone company or only one type of telephone company. Verizon I, 26 N.J. Tax at 418. AT&T was now solely a long-distance carrier, prohibited from competing in the local exchange markets, and the "divested carriers," such as New Jersey Bell, were now local exchange

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<sup>23</sup> See N.J. Bell Tel. Co. v. Laurel Springs Borough, 1 N.J. Tax 619, 628 (1980) (noting "[a]t the time N.J.S.A. 54:4-1 was amended in 1966 thereby limiting the taxation of personal property thereunder to tangible personal property of telephone companies, the mere ownership of tangible personal property by a telephone company, subjected said property to be assessable within the community where found on the assessing date").

companies assigned "the provision of local telephone service," Verizon Commc'ns, 535 U.S. at 475, their geographic reach limited by the newly drawn LATA boundaries. See N.Y. SMSA, 13 N.J. Tax at 568 (noting the effect of the 1989 amendment "after the AT&T divestiture, [was] to shift the local personal property tax from AT&T to New Jersey Bell which had become the local exchange company").

Critically, at the time of the 1989 amendment introducing the phrase "local telephone exchange," New Jersey Bell was still an entrenched monopoly in the local exchange market. Although Neustar was by then assigning the telephone numbers, New Jersey Bell was allocating them to its customers as it always had, assigning them with reference to the NPA-NXXs assigned to each rate center. In other words, New Jersey Bell was assigning the 609-466, -639 and 333 codes it received from Neustar, which were assigned to the Hopewell rate center, to customers and subscribers within the territorial boundaries of its Hopewell exchange. West testified the exchange maps included in Verizon's tariff throughout "the 1970s, 1980s, the so-called pre-competition era, were very good representations of the local telephone exchanges." That is, "the exchange area map boundaries coincided with the true exchange boundaries — the reach of the NPA-NXXs assigned to the exchange."

Thus, when the Legislature adopted the phrase "local telephone exchange" in 1989, the term was unambiguously understood to refer to the 209 established local exchanges inside New Jersey's three geographically defined LATAs, 180 of which were depicted in highly accurate exchange maps available to the public in New Jersey Bell's tariff. There is nothing to suggest the Legislature would have understood a local exchange to be anything other than how it was then defined — and depicted — in New Jersey Bell's tariff (and remains today in Verizon's product guide): "[a] unit established by the Company for the administration of communication service in a specified area which usually embraces a city, town or village and its environs. It consists of one or more central offices which may be located within or without the territorial boundaries of the exchange."

By 1997 when the Legislature amended N.J.S.A. 54:4-1 to redefine a local exchange telephone company from "a telecommunications carrier providing dial tone and access to substantially all of a local telephone exchange," L. 1989, c. 2, § 4, to "a telecommunications carrier providing dial tone and access to 51% of a local telephone exchange," New Jersey Bell had changed its name, but not its tariff definition of an exchange or its exchange area maps, L. 1997, c. 162, § 60. Although the Company's Hopewell exchange map had not been updated since 1974, West testified unequivocally that the

company's exchange maps remained accurate representations of the local telephone exchanges until its monopoly was ended by Congress in the 1996 Telecommunications Act.<sup>24</sup>

Moreover, although Congress opened the local markets to competition in 1996, the legislation did not alter the configuration of New Jersey's exchange boundaries and local calling areas, which made up the LATAs. The territorial boundaries of New Jersey's local exchanges and calling areas continued, as they had before, to comprise the contiguous geographic areas of the State's three LATAs.

Verizon doesn't dispute those points. West's argument is that Verizon's Hopewell exchange map, like all of its exchange maps, was never more than a reflection of "the array of customers that are served by any of the NPA-NXX code combinations that are associated with a particular rate center." West contends that because the routing, rating and billing of calls nationwide is

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<sup>24</sup> West testified "[t]here was no local competition authorized in this territory" prior to the federal 1996 Telecommunications Act, and that New Jersey Bell was "a virtual monopoly in this space." In the Telecommunications Act of 1992, N.J.S.A. 48:2-21.16 to -21.21, the Legislature authorized BPU to permit some competition in the local retail telephone market, which BPU had done prior to the 1996 Telecommunications Act, although implementation did not occur until after its passage. See Bell Atl.-New Jersey, Inc. v. Tate, 962 F. Supp. 608, 614-16 (D.N.J. 1997); Verizon I, 26 N.J. Tax at 418-19 (noting BPU "did not even begin to investigate whether local exchange competition should be permitted in New Jersey until 1996").

driven by the NPA-NXX code combinations assigned to a rate center, treating CLEC customers assigned an NPA-NXX code associated with the Hopewell rate center, who are physically located outside the boundaries of Verizon's Hopewell exchange map, as belonging to another exchange would create "distortions" and "mismatches" in how calls to and from that customer are rated and billed at the wholesale and retail levels.

In his view, the way to avoid those mismatches, which become "exponentially more likely post-competition," when CLECs assign NPA-NXX numbers assigned to a particular rate center to customers located outside the territorial boundaries of the exchange associated with that rate center, is to abandon the concept of an exchange map as an accurate depiction of the local exchange market and instead adopt his more "dynamic definition of [a] local telephone exchange," which relies on the NPA-NXXs that are assigned to the relevant rate center, which he "advocated and explained in [his] expert report."

Verizon's argument for its definition of a local telephone exchange is not frivolous, especially as West insists it represents the concept underlying Verizon's exchange maps from the time in which New Jersey Bell operated as a monopoly, but we find it unlikely to have been the Legislature's understanding of the term when it amended N.J.S.A. 54:4-1 in 1989 and 1997. First, West conceded he could cite no authority for his "dynamic definition" of

a local exchange, undermining Verizon's claim that West's definition is widely shared throughout the telecommunications industry.

Second, it is the understanding of a local exchange, post-competition, by a Bell engineer, exceedingly knowledgeable about the arcane and enormously complicated subjects of telephone technology, the architecture of telephone networks and competitive telecommunications markets. But it's inside baseball, requiring a sophisticated understanding of rate centers, call routing, and the differences between switch access and reciprocal compensation. West testified he developed his definition by looking at various sections of Verizon's tariff and the Local Exchange Routing Guide and "just kind of think[ing] through how these calls route and rate and that's how you come up with a working definition of local telephone exchange that avoids the sort of mismatches that occur when you assign Merrill Lynch to the Pennington local telephone exchange."

There is nothing in the record to suggest the Legislature understood the term "local telephone exchange" in the way West does when it amended the local property tax law to define a "local exchange telephone company," as "a telecommunications carrier providing dial tone and access to substantially all of a local telephone exchange." And we reject Verizon's view that the Tax Court judge should have afforded it and its experts the same deference a court



shows a state administrative agency by adopting the "definition offered by the industry leader, Verizon." Verizon's vested interest in avoiding the tax makes its comparison of itself to an administrative agency an inapt analogy.

We also do not find the Tax Court erred in evaluating the testimony of the experts or failed to make adequate factual findings. Matters of credibility are within the unique province of the trial court, which is free to accept all, some, or none of an expert's opinion. Todd v. Sheridan, 268 N.J. Super. 387, 401 (App. Div. 1993). Moreover, as we've already noted, the nature of the parties' dispute did not make it incumbent on the Tax Court to find facts in this case.

The parties' experts, particularly West and Starkey, were offered to provide their differing views on the telephone industry's understanding of a local telephone exchange to assist the court in its interpretation of the statute. This trial was devoted almost entirely to resolution of the statutory interpretation of "local telephone exchange" in N.J.S.A. 54:4-1, an issue of law we review de novo, which explains why we have so extensively quoted from the experts' trial testimony to illustrate their different views of this term of art.

Like Judge Brennan, we find Starkey's testimony as to the telephone industry's understanding of a local exchange more persuasive — and likely a good deal closer to the understanding of the Legislature when it deployed the

term. Verizon II, 31 N.J. Tax at 74. Starkey agreed with West about the importance of rate centers to the routing and rating of calls and West's description about how Verizon built out its network. He agreed with West that Verizon did not assign customers telephone numbers outside the geographic area of the rate center with which the numbers were associated, and thus that the territorial boundaries of Verizon's exchange maps were driven by the assignment of telephone numbers to Verizon's customers, i.e., West's array of customers served by any of the NPA-NXX code combinations associated with a particular rate center. He also agreed Verizon's competitors did not share its policy about "not mix[ing] and match[ing] the local telephone exchanges," — assigning a customer an NPA-NXX code combination assigned to a rate center associated with one exchange to another exchange — and, thus, that there are likely to be some CLEC customers with NPA-NXX codes associated with the Hopewell rate center who are physically located outside the territorial boundaries of Verizon's Hopewell exchange map.

What Starkey disagreed with West about was West's insistence that the territorial boundaries of Verizon's exchange maps no longer have any meaning in the post-competition era because they essentially capture only Verizon's customers and not those of its competitors. Starkey acknowledged the presence of competitors in the local markets and their use of remote switches

to serve vast swaths of the State using fiber optic cable represents a dramatic change from the Bell System model of having a switch in every exchange loaded with the NPA-NXX combinations associated with the exchange's rate center. But he insisted those changes did not change "the definition of a local telephone exchange."

Starkey maintained AT&T's ability to load 10,000 NPA-NXX code combinations associated with the Hopewell rate center into its Camden switch to serve the Merrill Lynch complex in Hopewell Township located outside the territorial boundaries of the Hopewell local exchange doesn't mean the Hopewell exchange now encompasses the Merrill Lynch complex as Verizon asserts. He explained that because AT&T can serve large portions of the State, and maybe the entire State, from its single switch in Camden, it could assign those numbers to customers anywhere on its network.

Applying West's "dynamic definition" of the Hopewell local exchange would not only mean that Merrill Lynch, located within the territorial boundaries of the Pennington exchange, would be included in the Hopewell exchange, so would the customers in Trenton and Atlantic City to whom AT&T had assigned NPA-NXX code combinations associated with the Hopewell rate center — a point West was forced to concede. Indeed, West contended AT&T's and its other competitors' ability to assign NPA-NXX code

combinations associated with the Hopewell rate center virtually anywhere made it impossible to map the Hopewell exchange in 2008 or at the time of trial.

Like Judge Brennan, we agree a local telephone exchange that cannot be mapped or defined by specific geographic boundaries because the array of customers associated with the NPA-NXX codes assigned to a particular rate center associated with the exchange of the same name are now scattered across the State is completely at odds with the traditional understanding of local exchanges as defined, geographical areas that can be mapped, which when grouped together with other exchanges in local service areas form the contiguous geographic areas of the LATAs. Id. at 74-75. It's also at odds with the definition of "basic exchange service" in Verizon's pre- and post-competition tariffs and product guide as "telecommunications service furnished to individual line business and residence customers within a specified geographical area for the purpose of local calling . . . and to gain access to and from the telecommunications network" as well as the Company's continued representation of its exchange maps as depicting "the territorial boundaries of the exchange area." Id. at 54.

In addition to the federal and State case law defining local exchanges in connection with the breakup of the Bell System and its aftermath and Verizon's

own explanation of its exchanges in its tariffs, exchange maps and 2014 product guide, perhaps the most telling indicator in this case of the generally accepted understanding of the idea of a local exchange as a "specified geographical area" depicted on an exchange map, is that Verizon's expert, Vantzelfde, based his entire analysis of Verizon's competitive market share in the Hopewell local exchange on the territorial boundaries of Verizon's 1974 Hopewell exchange map.<sup>25</sup>

Although endorsing West's definition of a local exchange as essentially "a group of customers . . . assigned a specific set of NPA-NXX codes that are attached to a rate center," which Vantzelfde appeared to rely on only for purposes of including Merrill Lynch in the Hopewell exchange and excluding Johnson & Johnson, Vantzelfde testified unequivocally he "needed to use [Verizon's exchange] map to do [his] analysis." Vantzelfde also testified he'd used the same methodology relying on exchange map coordinates to establish market share in local exchanges in other reports for Verizon and other telecommunications companies as well as for state public utility commissions.

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<sup>25</sup> Verizon's repeated claim in its briefs that Hopewell and the Tax Court relied "on an outdated, pre-competition understanding" of a local telephone exchange based on an "obsolete" and "meaningless" 1974 exchange map ignores that West testified the map remained a very accurate representation of the Hopewell local exchange for another nearly twenty-five years, i.e., through the end of the pre-competition era and the 1997 amendment of the statute, and that it is on file today with BPU as part of Verizon's product guide.

Vantzelfde testified he used the boundaries of Verizon's Hopewell exchange as depicted on its exchange map as "the geographic area" of the Hopewell exchange because although Verizon "doesn't necessarily know where the CLECs' customers and boundaries of exchanges are," his "experience has been . . . that the geography is a fair representation" of the local exchange.

Finally, going back to the Court's analysis in Norfolk Southern, we consider the testimony offered by both West and Starkey about how Verizon's New Jersey local telephone exchanges developed "to assist us in interpreting the phrase in accordance with its intended meaning." 215 N.J. at 168. West testified the purpose of the Hopewell exchange map "was to try to capture the scope of the Hopewell local telephone exchange," and that "[t]he real scope, the real end point of this Hopewell local telephone exchange is defined by how far these lines reach."

Starkey's understanding was the same. He testified the legacy network Verizon inherited was "largely based on its exchange boundaries." He explained, as West had, that New Jersey Bell had a central office in each exchange and sent cables out to the boundaries "and then a different central office and a different exchange network handled exchanges that were beside them."

Thus, "the real scope" of the Hopewell exchange West described, "how far these lines reach[ed]" when Bell built the system, was dictated by how "far you could push a signal from the central office switch out on copper before it became so weak you couldn't hear it anymore." Starkey explained it was that "engineering reality" of the reach of copper wires to carry signals that explained "why these exchange boundaries" existed and why there are "180 [local telephone exchanges] in Verizon's territory in New Jersey."

We reject West and Verizon's more modern and "dynamic" understanding of a local telephone exchange as the array of customers served by any NPA-NXX code combination associated with a particular rate center, regardless of where those customers are located, as an appropriate guide for understanding the meaning of the phrase as used by the Legislature when it amended N.J.S.A. 54:4-1 in 1989 and 1997. The phrase "local telephone exchange" has "deep roots" in the development of the public switched telephone network and particular importance in the restructuring of the telephone industry after the breakup of AT&T.

We are convinced by the centrality of the local exchanges to the structure of the telephone industry in the wake of the break-up of AT&T and New Jersey's changing approach to taxing the monopolies providing local exchange service, as well as by the testimony of the experts in this case, that

when the Legislature added the qualifier "local exchange" to "telephone companies" and defined such as "a telecommunications carrier providing dial tone and access to substantially all of a local telephone exchange" in 1989, it intended the phrase "local telephone exchange" to be understood as a specified geographical area, the territorial boundaries of which were as depicted on exchange maps on file with BPU "in accordance with the way in which it was used at the time when the language was chosen." Norfolk S., 215 N.J. at 173. We are also convinced that understanding is the most sensible when considering how New Jersey's 209 local exchanges were built and developed. Ibid.

As Judge Menyuk found in recounting the history of New Jersey's taxation of the telephone companies, when N.J.S.A. 54:4-1 was again amended in 1997 as part of a legislative effort to revise the taxation of the local exchange companies "in order to preserve certain revenues under transitions to more competitive markets in . . . telecommunications," the Legislature plainly anticipated that competition from CLECs would eventually end the entrenched local monopolies of the incumbent local exchange carriers and "[t]he personal property tax . . . would suffer a slow death by attrition whenever Verizon or another ILEC ceased providing 51% of the dial tone and access of an exchange." Verizon I, 26 N.J. Tax at 413, 420.



The 51% test thus is intended to measure the penetration of the CLECs into a local telephone exchange, understood in accordance with the way the statutory phrase was used in 1989 at the time the language was first employed, meaning as depicted on the local exchange maps. Defining the statutory phrase as Verizon would have us do, not to a market having readily identifiable territorial boundaries relative to the local municipality where Verizon's switch is located but to one without territorial boundaries and impossible to map, does not so much measure the local exchange market, in our view, as redefine it.

According to the FCC, Verizon, Century Link and Warwick Valley's statewide share of the local exchange market dipped below 51% in 2012. Thus, the truly competitive local exchange markets the Legislature anticipated may have already arrived in many of the State's local exchanges, with the slow death Judge Menyuk predicted of the personal property tax on the incumbent local exchange carriers already well underway. While we are convinced Verizon served more than 51% of the Hopewell telephone exchange as of the January 1, 2008 assessment date at issue here, the same may not be true in other exchanges. Merrill Lynch's presence in the Pennington exchange for example, may mean Verizon no longer provides dial tone and access to 51% of that exchange.

That brings us to how the 51% should be measured, and whose burden is it to do so. Because Verizon conceded that defining the local exchange with reference to the territorial boundaries of its exchange map would exclude Merrill Lynch — and make clear it provided dial tone and access to more than 51% of the Hopewell local telephone exchange as of the January 1, 2008 assessment date, even including Johnson & Johnson's campus as part of the Hopewell exchange as Hopewell contended was appropriate — Judge Brennan did not consider the question of how to measure the 51%. We offer the following brief comments only to address certain issues Verizon has raised and as guidance for cases in which the issue will have to be litigated.

As Judge Brennan noted, evaluating any expert's "analysis and methodology" in ascertaining the incumbent local exchange carrier's share of a local telephone exchange "will be highly fact sensitive, will likely vary from year to year, and may also be dependent on the characteristics of a specific exchange." Verizon II, 31 N.J. Tax at 61. We have no hesitation in agreeing with Judge Brennan that Verizon bore the ultimate burden of proof here to establish it is no longer a "local exchange telephone company," that is "a telecommunications carrier providing dial tone and access to 51% of a local telephone exchange." Our reasons are two-fold. First, telecommunications carriers subject to the tax in N.J.S.A. 54:4-1 are initially required to self-

report, i.e., establish, the value of their taxable personal property.<sup>26</sup> See Little Egg Harbor Twp. v. Am. Tel. & Tel. Co., 9 N.J. Tax 314, 328 (Tax 1987) (noting "that N.J.S.A. 54:4-2.48 requires a taxpayer to self-report the value of its taxable personal property does not relieve the assessor from performing his statutory duty to independently value the property"), aff'd sub nom. Twp. Comm. of Little Egg Harbor in Cnty. of Ocean v. Am. Tel. & Tel. Co., 10 N.J. Tax 236 (App. Div. 1988).

Second, our Supreme Court has generally "imposed the burdens of persuasion and production on the party best able to satisfy those burdens," reasoning "the party with greater expertise and access to relevant information should bear those evidentiary burdens." J.E. ex rel. G.E. v. State, 131 N.J. 552, 569-70 (1993). The record here makes clear that party is Verizon. Besides having access to the E911 database in its role as administrator of the Automatic Location Identification database for New Jersey's E911 system, which it apparently has used for years for performing competition analyses, West testified he regularly conducted "wire line analyses proving the state of competition" on Verizon's behalf before state utility commissions in regulatory

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<sup>26</sup> We reject Hopewell's claim that Verizon should bear the burden of proof in this proceeding because it is seeking an exemption from the local property tax. We do not share the Borough's understanding. In our view, Verizon is simply attempting to demonstrate it no longer meets the definition of a "local exchange telephone company" subject to the business personal property tax.

proceedings. He testified the analysis he conducted in this matter of Verizon's lines and competitors' lines in the Hopewell exchange was the same he'd performed for a "competition case" before BPU in which the company presented "market share calculations . . . for all 180 [of Verizon's] local telephone exchanges."

We reject out-of-hand Verizon's argument that the Tax Court's adoption of a "geography-based test for the 51% threshold" created an "unworkable test that cannot be applied without rendering N.J.S.A. 54:4-1 fatally ambiguous." In our view, Verizon presented two reasonable methods for establishing its percentage share of dial tone and access provided to the Hopewell exchange as of the assessment date. It's undisputed the E911 database provides up-to-date information linking each listing to a specific location, and Vantzelfde relied on Hopewell's exchange map and a host of publicly available information permitting him to estimate the "total market lines" within the Hopewell exchange without relying on the E911 database.

Finally, we reject Verizon's contention the Tax Court erred in accepting Starkey's opinion when he failed to conduct "his own analysis of the total market share of dial tone and access provided by Verizon" in the Hopewell exchange as of the January 1, 2008 assessment date, and did not suggest "an

alternative methodology that could have been used to establish Verizon's market share in the absence of actual competitor data."

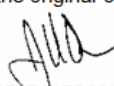
From our perspective, this trial provides an excellent example of how these tax cases should be tried. The parties were represented by very able lawyers presenting knowledgeable and well-prepared experts. As already noted, Verizon presented two reasonable methods for calculating its market share.

While Hopewell's expert might have presented his own analysis, we see nothing amiss in the Borough's decision to instead rely on Starkey's critique of the opinions offered by Verizon. In addition to expressing a different opinion on the industry's understanding of a local exchange, Starkey also presented a reasonable critique of Vantzelfde's line counts, West's business lines to listing ratio and the significant difference between both experts' estimates of Verizon's market share in the Hopewell exchange and the FCC's determination of the statewide market share for all three incumbent local exchange carriers as of the end of 2007, data Vantzelfde also relied on to test his market analysis. While we express no opinion on the validity of any of these calculations or critiques, they represent the sorts of fact-sensitive issues the Tax Court will have to resolve in other cases presenting similar challenges.

We affirm Judge Menyuk's 2012 decision finding N.J.S.A. 54:4-1's 51% market-share calculation must be performed annually and that an annual market-share calculation, as applied to Verizon, does not violate the State and federal equal protection guarantees, the State prohibition of special legislation or the Uniformity Clause, and Judge Brennan's 2019 decision that Verizon is subject to the tax imposed for tax year 2009 because it provided dial tone and access to 51% of the Hopewell Local Telephone Exchange in 2008. To the extent we have not expressly addressed any of the parties' arguments, it is because we have determined them to be without sufficient merit to warrant discussion in a written opinion. R. 2:11-3(e)(1)(E).

Affirmed.

I hereby certify that the foregoing  
is a true copy of the original on  
file in my office.

  
CLERK OF THE APPELLATE DIVISION