EXHIBIT 3

EXHIBIT 3

DELAWARE

In Delaware, competing carriers have the ability to offer service to 97% of Bell Atlantic's special access demand. They are providing special access services over about 2,000 fiber miles of new, state-of-the-art networks in conjunction with numerous facilities collocated in Bell Atlantic's central offices. Bell Atlantic has provided competitors with collocation in 15 central offices. In these central offices, competitors have established 30 physical or virtual nodes. Competitors have also negotiated 48 interconnection agreements with Bell Atlantic with 38 approved by the state regulatory agencies. Below is an overview of some of the competitors offering service in the state and maps showing the competitive networks.

MCI WorldCom's focus in Delaware has been in the Wilmington area. The company built a fiber network in 1993 and started offering service as a CAP. MFS, MCI WorldCom's local exchange company, is a fully certified competitive local exchange carrier (CLEC) in Wilmington and signed an interconnection agreement with Bell Atlantic in July 1996. MCIMetro, also now part of MCI Worldcom, has been in the Delaware market since 1996 when it installed a voice switch in Wilmington and is also a fully certified CLEC. MCI WorldCom plans to connect this network to its Philadelphia network. Currently, they have about 22 route miles of fiber in the Wilmington area.

AT&T/TCG has a 75-mile network in New Castle County, Delaware that connects with its Pennsylvania, Maryland and New Jersey networks. Its Delaware network serves the cities of Wilmington, Newark, Claymont and New Castle.

Conectiv Communications was formed late in 1997 through a merger between Delmarva Power & Light, Co., of Wilmington, Delaware and Atlantic Electric in southern New Jersey. Conectiv focuses on the mid-Atlantic region and is headquartered in Wilmington. The company plans to offer a package of services including high-speed data transport and special access, bundled toll, local, long-distance and services.

Conectiv owns and operates a network that spans more than 600 miles and stretches from southern New Jersey, into southeastern Pennsylvania, Delaware and Maryland. The company's move into telecommunications has been easier than starting from the ground up because it already has poles and cables in the ground. Conectiv is expanding its network to serve the following major cities: in New Jersey; Atlantic City, Camden, Trenton, Middlesex County, Monmount County, Ocean County; and in Maryland; Bethesda, Rockville, Salisbury, Silver Spring, Baltimore and Annapolis

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Competitive Networks

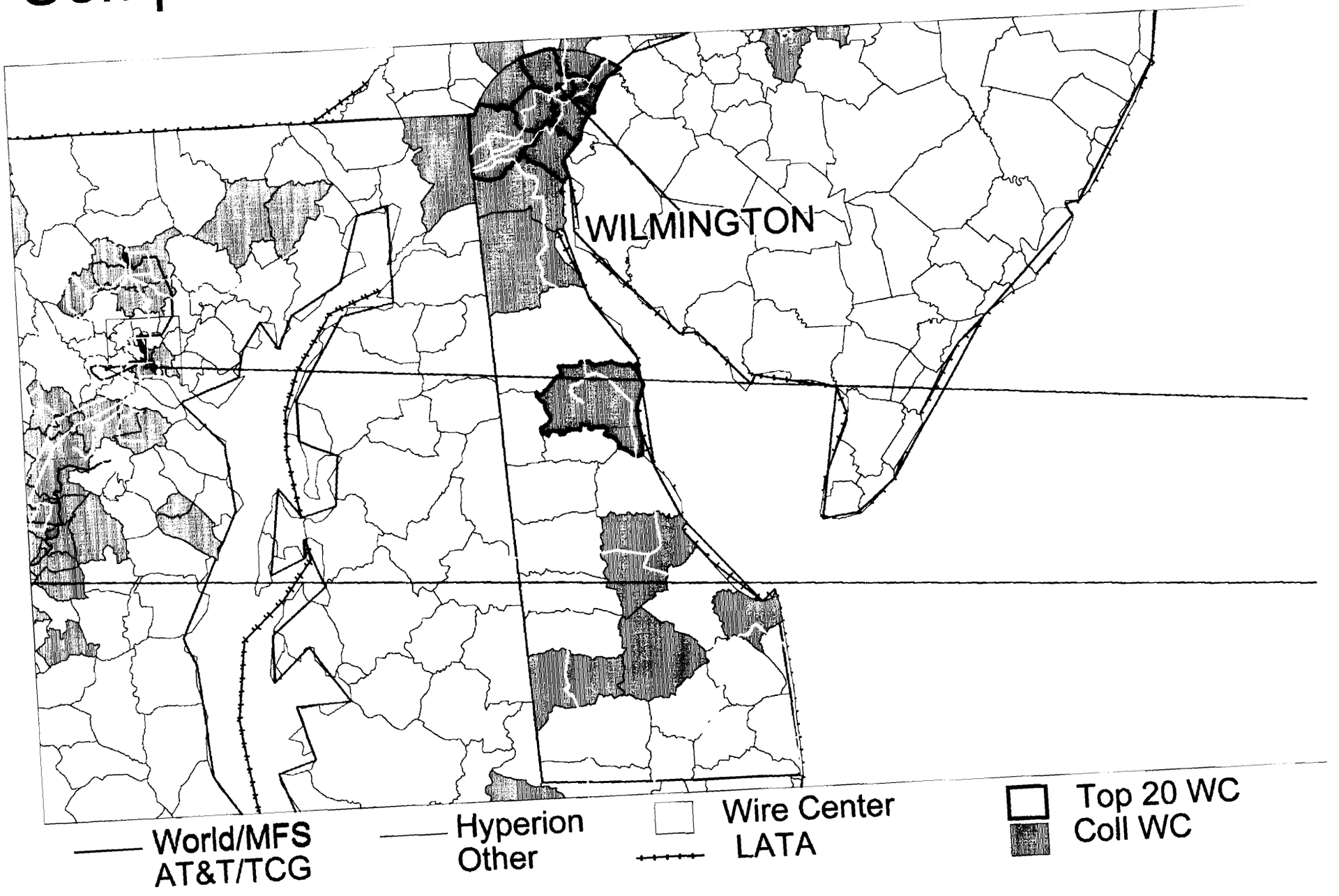


EXHIBIT 4

NEW YORK

In New York, competing carriers have the ability to offer service to 92% of Bell Atlantic's special access demand. They are providing special access services over approximately 145,000 fiber miles of new, state-of-the-art networks in conjunction with numerous facilities collocated in Bell Atlantic's central offices. Bell Atlantic has provided competitors with collocation in almost 115 central offices. In these central offices, competitors have established over 400 physical or virtual nodes. They have also negotiated over 60 interconnection agreements with Bell Atlantic with almost 55 approved by the state regulatory agencies. Below is an overview of some of the competitors offering service in the state and maps showing the competitive networks.

MCI WorldCom, with MFS, is well positioned to compete in New York with its networks in New York City, White Plains, Long Island, Albany, Buffalo, Rochester and along the New York State Thruway. Its New York City network is also connected to its northern New Jersey network. MFS began service as a CAP in 1987 concentrating on midtown and downtown Manhattan with emphasis on the banking and brokerage industries. As a CAP, the company was exclusively focused on providing alternative dedicated access and high capacity services. As the FCC noted, "MFS has focused on building extensive fiber networks in a number of major metro areas, including the New York City Metro Area."[1]

AT&T/TCG is also well situated with its networks in New York City, Long Island, White Plains and connections to its northern New Jersey network. TCG originally began as a CAP in 1985 with its own network covering midtown and downtown Manhattan. Like MFS, the company was exclusively focused on providing alternative dedicated access and high capacity services. Before being acquired by AT&T, TCG acquired ACC, giving it a local presence in upstate New York. AT&T's strategy is to

[1] Federal Communications Commission, Memorandum Opinion and Order, CC Docket No. 97-211, September 14, 1998, Paragraph 174.

continue to substitute TCG, as well as other CAP facilities, for Bell Atlantic special access services.

Hyperion Telecommunications, Inc. has two operational networks and another one planned. In 1995, the company opened a network in Buffalo in partnership with TCI. Hyperion signed an agreement to buy TCI's interests in 1998. Hyperion's Syracuse network became operational in 1992. The company plans to open a network in Albany. Hyperion's northeast cluster, which includes Vermont, spans 1,285 route miles and contains 53,947 fiber miles. The company has three Lucent 5ESS host switches installed. The switches are located in Albany, Buffalo and Syracuse. Hyperion is certified to provide local exchange, interexchange and exchange access services statewide and has signed an interconnection agreement with Bell Atlantic.

Intermedia has a presence in New York City, Albany, Buffalo, Rochester and Syracuse. The company does not own any fiber networks in New York; it leases them. This is consistent with the so-called "Smart Build" philosophy that it is better to acquire the customer base first and build the fiber highway later when it makes economic sense. Besides expanding its reach through acquisitions, such as Shared Technologies, Intermedia recently purchased nationwide transmission capacity from the Williams Network.

Level 3 Communications proposes to provide every possible service over Internet Protocols (IP). Level 3's presence in New York City was strengthened in the private line market by its acquisition of XCOM. Level 3 is building its own network, and is also leasing capacity from Frontier. Within three years, Level 3 expects to have in place a pure IP network that will serve 60 cities. Level 3 also is building local fiber optic loops to compete directly with the Bell Atlantic in New York. Like many start-ups, the company is following the "Smart Build" strategy as it gains a presence in various areas. Level 3 plans to lease network components in its initial target markets, and move the traffic to its own networks as they are completed.

Cablevision Lightpath currently has 845 route miles and 27,000 fiber miles covering Long Island, Brooklyn, the Bronx, and Westchester. It began offering

residential service to 7 Long Island communities in 1997. These included Bayville, Locust Valley, North Bellmore, Oyster Bay, Seaford, Syosset and Uniondale. In 1994, the company activated a Lucent 5ESS switch that permitted the company to offer local dial tone, ISDN and toll service. Cablevision has been authorized to provide special and dedicated access services, Private Line, Local dial tone, Centrex, and Inter & Intrastate Toll statewide since 1995. The company signed an interconnection agreement with Bell Atlantic in 1997.

Time Warner has a 22 mile fiber optic ring installed in lower Manhattan. The company's New York City network opened in 1995 spanning 65 route miles and consisting of 11,277 fiber miles. Time Warner operates another network located in Rochester and has networks planned for Albany and Binghamton. The Rochester network, which began operations in 1995, covers 241 route miles and consists of 7,737 fiber miles. The Albany network, upon completion, will span 34 route miles and contain 2,043 fiber miles. The Binghamton network will be 73 route miles in length and contain 480 fiber miles. The company has two Lucent 5ESS voice switches installed—one located in New York City and the other in Rochester. Since 1993, Time Warner has been certified to provide point-to-point services, including special access services, switched local and long distance in Albany and Rochester. The company was granted certification in 1994 to provide long distance, switched local and intraLATA service in New York City. The company has an interconnection agreement with Bell Atlantic signed in 1997.

Metromedia Fiber Network, Inc.'s New York City network opened in 1994, spanning 66 route miles and consisting of 19,060 fiber miles. The company expanded this network to run 179 route miles with over 61,000 fiber miles. Metromedia has a franchise agreement in New York City to lay fiber in all five boroughs of New York City. The company is also planning an intercity link between Washington D.C. and New York City in 1998 that will cover 264 route miles and 114,000 fiber miles.

RCN Corporation's network is located in Manhattan below 110th street and rings major avenues and cross streets. The company leases fiber and transmission facilities from MCI Worldcom. The company has one Lucent 5ESS-2000 voice switch installed in New York City. RCN has been certified since 1996 to provide full CLEC

services statewide, including special access services. The company has an interconnection and resale agreement with Bell Atlantic.

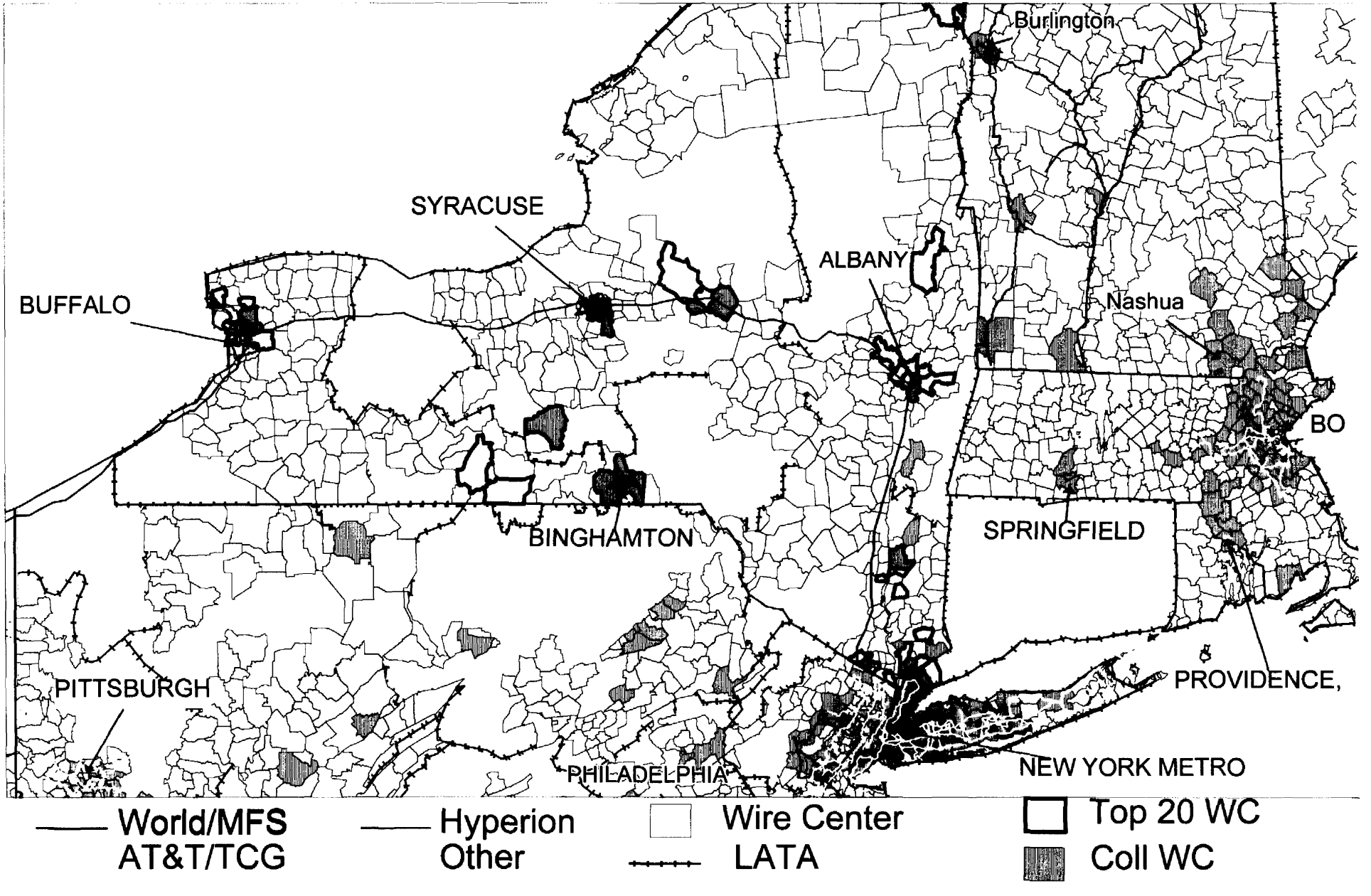
NEXTLINK Communications, Inc. entered into 20-year lease of capacity over an existing 47 route mile fiber network that extends from Wall Street north to midtown Manhattan. The company plans to offer switched local and long distance services. NEXTLINK has one Nortel DMS-500 voice switch installed and has CLEC authority in the state of New York.

WinStar Communications, a fully certified CLEC in New York, serves customers using a Lucent 5ESS voice switch which it installed in 1996. The company has 7 channels of capacity (700 MHz) in the New York City market—with no less than 1 DS3 of capacity per channel to each building served which may be used to provide special access services. WinStar signed an interconnection agreement with Bell Atlantic in 1996.

Allegiance Telecom has voice switches planned for Long Island and New York City. In 1997, the company was granted certification to provide local and long distance service. Allegiance signed an interconnection agreement in 1997 with Bell Atlantic.

Local Fiber, or LLC, a subsidiary of FiberNet, provides facilities-based local telecommunications services. The company expects to enter New York City in 1998 using a 16 route mile and 384 fiber mile network. LLC has plans to install a Lucent 5ESS-2000 switch and has signed an interconnection agreement with Bell Atlantic.

Competitive Networks



Competitive Networks

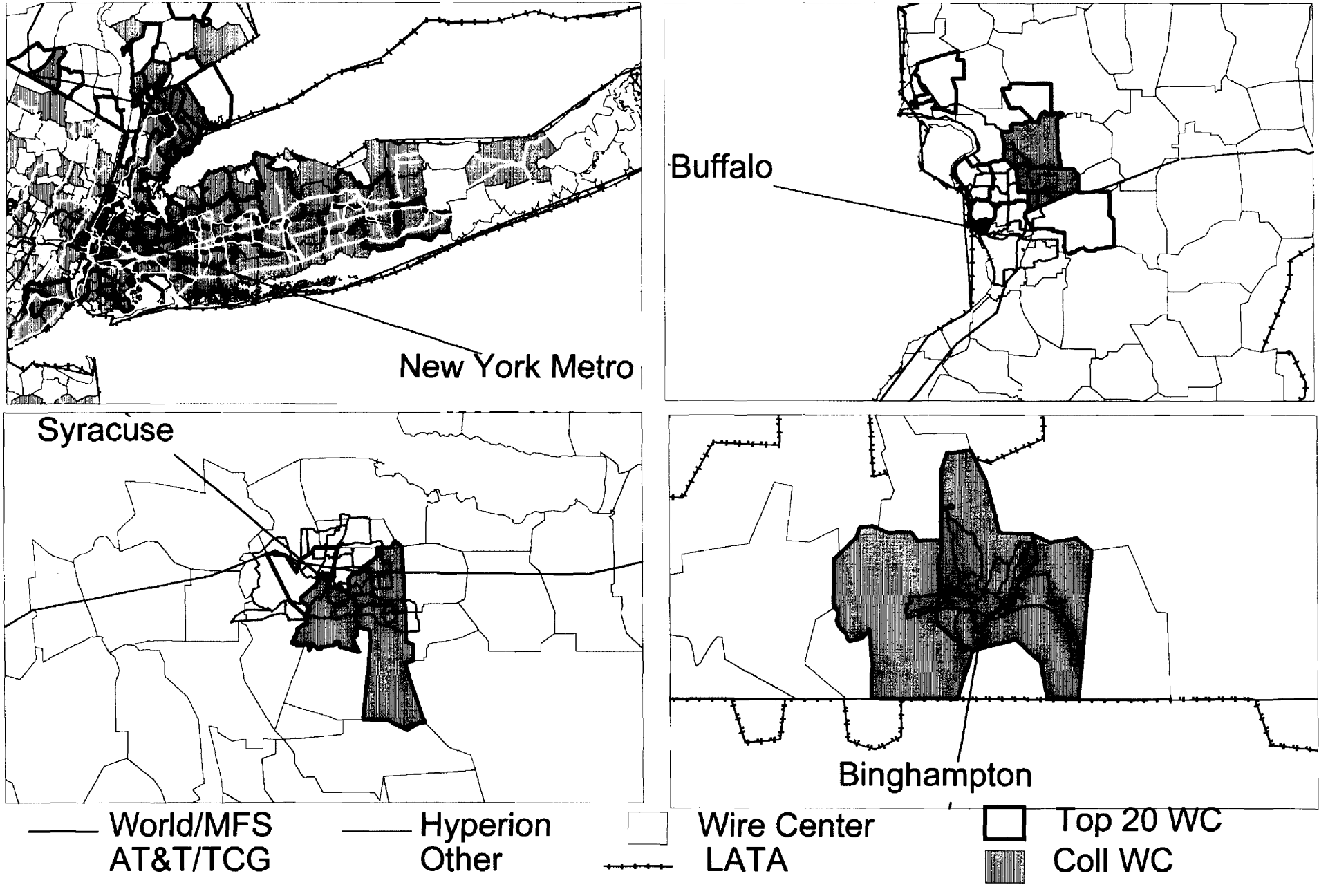


EXHIBIT 5

EXHIBIT 5

MASSACHUSETTS

In Massachusetts, competing carriers have the ability to offer service to 92% Bell Atlantic's special access demand. They are providing special access services over approximately 73,000 fiber miles of new, state-of-the-art networks in conjunction with numerous facilities collocated in Bell Atlantic's central offices. Bell Atlantic has provided competitors with collocation in over 70 central offices. In these central offices, competitors have established almost 245 physical or virtual nodes. They have also negotiated over 85 interconnection agreements with Bell Atlantic with almost 70 approved by the state regulatory agencies. Below is an overview of some of the competitors offering service in the state and maps showing the competitive networks.

MCI WorldCom's MFS has approximately 135 route-miles with 7,263 fiber miles in the greater Boston area and has been offering CAP services for years. MCI WorldCom's network covers most of the main business areas downtown as well as the major suburbs to the west and north. Specific areas served include the Financial District, Back Bay, Cambridge, Brookline, Newton, Waltham, Burlington, Winchester, Hanscom Air Force Base, and Quincy.

MCI Worldcom's MCIMetro has approximately 350 route-miles of fiber in the greater Boston area. The majority of MCI's network was acquired when the company bought Digital Equipment Corporation's New England fiber optic network. MCI's greater Boston network is extensive, extending west from downtown to Marlborough and north to Nashua, New Hampshire. The network currently has three primary SONET rings, two downtown and another in the outlying areas. Downtown streets with the largest numbers of lit buildings are Federal Street, Congress Street, and Boylston Street. Additionally, MCI serves the Faneuil Hall area and the Route 128 corridor.

MCI Worldcom's Brooks has a network in Springfield that was originally constructed in 1992 and currently consists of approximately 20 route-miles of fiber. The majority of the fiber in Springfield is located in the central business district. The network reaches State Street to the east and West Springfield to the west. Brooks offers service to the suburbs of Chicopee, Holyoke, Amherst, and Northampton through unbundled services.

Brooks is currently installing fiber in Chicopee and Holyoke. Expansion to Amherst and Northampton will follow. It has also expanded to Portland, Maine. Brooks initially offers service through resale in these areas then it collocates in Bell Atlantic central offices and eventually offers service through a combination of resale and facilities-based service.

AT&T/TCG built a network in 1988 which runs 450 route miles and contains 15,600 fiber miles over which it has been offering service as a CAP. In 1997, the company began offering services to colleges, universities and commercial subscribers via a Lucent 5ESS switch. TCG also has other Lucent 5ESS switches installed in Marlboro and Boston. The company has been certified to provide service in Massachusetts since 1988. In addition to Boston, TCG's network extends throughout Norfolk, Essex, Suffolk and Worchester counties providing local service. The network also connects with its Providence, Rhode Island network. Specific areas served in Boston include the central business district, Quincy, Needham, Framingham, the route 128 corridor, and the "metro-west" area including Northboro, Westboro, Southboro, Hudson, Worcester, Framingham, Marlboro and Burlington.

TCG currently is expanding its network in Worchester County and Portsmouth, New Hampshire. TCG's network covers the majority of the metropolitan areas, and it is considering several locations to build fiber spurs to serve additional buildings.

Intermedia Communications, Inc., a certified interLATA toll provider since 1996 and has one data switch operational in Boston. In addition, the company signed an interconnection agreement with Bell Atlantic in 1997.

Level 3 Communications recently purchased XCOM Technologies which serves customers with its Cambridge network that began operations in 1997. The company has one Nortel DMS 500 voice switch installed, has been granted statewide CLEC status.

Cablevision Systems Corp. currently provides telecommunications and entertainment services in three primary markets; New York, Boston and Cleveland. Cablevision Lightpath, the company's local telephone subsidiary, provides services to both businesses and residences in New York, mainly on Long Island. Cablevision has been providing its local services, including dedicated and special access services and private lines, to businesses since 1994 and introduced its residential telephone service, Optimum Telephone, in July of 1997.

In 1997, Cablevision plans to spend approximately $160 million to rebuild and upgrade its network in the Boston metro area which will enable the company to provide telephone service, high-speed Internet access and expanded cable television service. This upgrade was undertaken in part as a response to competition, but mainly as a renewal of its franchise agreement with the City of Boston. Cablevision agreed to build its advanced system within three years to serve all residential streets where the cost does not exceed $500 per household. The new fiber-optic system will operate at a speed of 750 MHz.

WinStar Communications, Inc. is a national local communications company serving business customers, long-distance carriers, fiber-based competitive access providers, mobile communications companies, local telephone companies, and other customers with broadband local communications needs.

WinStar installed a Lucent 5ESS switch in Boston and began offering facilities-based local switched services in May 1997. WinStar began reselling local switched services in the first quarter of 1997 and is marketing its services to small and medium-sized businesses in Boston. Winstar attempts to win customers by offering faster installation at lower costs. This is possible by the relatively inexpensive process of setting up antennas on buildings, in contrast to the digging and provisioning that wireline carriers must do. The 38-GHz service is possible by mounting a 12 or 24 inch antenna on the customer's roof. A single coaxial cable carries the communications signal and power

to each indoor unit, which is about the size of a set-top box. Indoor units support four T-1's, eight DS-1s, or a DS-3 that may also be used to provide dedicated special access and private lines.

WinStar first provides its services on a resale basis in each city, and follows initial marketing efforts with the installation of a Lucent 5ESS switch within a few months. The company already has switches in New York, Chicago, and Los Angeles. Winstar's plans also include expanding in Boston and the surrounding area, especially in the Route 128 loop

NEON, NorthEast Optic Network, Inc. was formed to install fiber optic cable to provide and lease service to CAPs/CLECs, IXCs, cellular companies, PCS companies, and LECs. Currently, they are leasing lines to companies such as Brooks Fiber, MCI, Sprint and ISPs. These companies in turn resell their lines to retail customers. NEON's primary focus is private networks, building fiber and coax lines which may be used to provide high speed special access services.

NEON is currently developing a fiber optic network from Stamford, Connecticut to Dover, New Hampshire. The network eventually will form a continuous fiber network from New York City to Boston and on to Portland and Bangor, Maine with a possible extension to eastern Canada. A 36 route-mile link from Hartford, Connecticut to Springfield, Massachusetts has already been completed. The Springfield network became operational in 1996 and is 4.5 route miles in length and consists of 432 fiber miles. The Boston network is planned to become operational in 1998. The network will be 42 route miles in length and consist of 6,048 fiber miles. A network in Lawrence, Ma. is also planned to be in operation in 1998. The network will be 3 route miles in length and consist of 240 fiber miles.

Comav Corporation is deploying Siemens EWSD switching equipment in its network being constructed in Framingham. The company already provides special and dedicated access and private lines over its 5 route miles and 120 fiber miles of networks throughout Massachusetts and New York and has signed an interconnection agreement with Bell Atlantic.

RCN Corporation operates a network established in 1996 in a joint venture with Boston Edison. RCN previously resold services through leasing agreements with WorldCom. The company recently constructed its own network that consists of four main loops. These loops cover the following areas:

- **South Boston Loop** – runs on Huntington Avenue to the west; Massachusetts Avenue to Columbia Road in the south; Silver Street to the east; and High Street to the north. It spans approximately nine miles.
- **Fenway Loop** – This portion of the network does not form a complete loop but runs on Commonwealth Avenue to the west; Highway 20 to the north, and Brookline Avenue to the east. It spans approximately four miles.
- **Downtown Loop** - runs on Charles street to the west; Avery Street to the south; Atlantic Avenue to the east; and Merrimac Street to the north. It spans approximately four miles.
- **Commonwealth Loop** – runs on Brookline Avenue to the west; McGreevey Way to the south; Huntington Avenue to the east; and Beacon Street to the north. It spans approximately five miles.

RCN has 300 miles of fiber in Boston and New York City. To reach residential customers in densely populated areas, RCN has entered into joint ventures with utilities, such as PEPCO, in Washington DC, and Boston Edison, in Boston, Ma. It has also acquired cable television companies and Internet Service Providers (ISPs), such as Liberty Cable and Interport Communications. Through its acquisition and joint ventures, RCN is able to offer a bundled package of services at a discount, which include special access, local, long-distance, cable television, and Internet access. According to RCN, since its network is designed and built around the Internet, it is flexible and readily expandable, thereby allowing capacity to meet today's telecommunication needs, as well as the future's needs.

In the first quarter of 1998, RCN acquired Erol's Internet, which established RCN as the Northeast's largest regional ISP, with approximately 310,000 Internet subscribers

along the Boston to Washington corridor. This acquisition furthers RCN's stated mission to become the leading provider of phone, cable and Internet service to the residential market from Boston to Washington.

RCN also plans to construct an 18 GHz wireless network to provide cable to homes that are off net and resell Bell Atlantic telephone service to those customers. RCN's next scheduled area for expansion is South Boston and the company eventually plans to offer service to the entire city. Through its joint venture with Boston Edison, RCN is preparing to provide bundled communication services to about 45 Boston area communities. RCN will use Boston Edison's 200-mile fiber-optic network and its rights of way into customer's homes to compete with the larger telecommunications providers.

RCN plans to offer telecommunications and video services throughout the populated Boston-Washington corridor. It will either resell or obtain unbundled network elements from Bell Atlantic and continue to construct its own fiber optic telecommunications network. It is positioning itself for "one stop shopping" by providing local, long-distance, video and Internet access services.

Competitive Networks

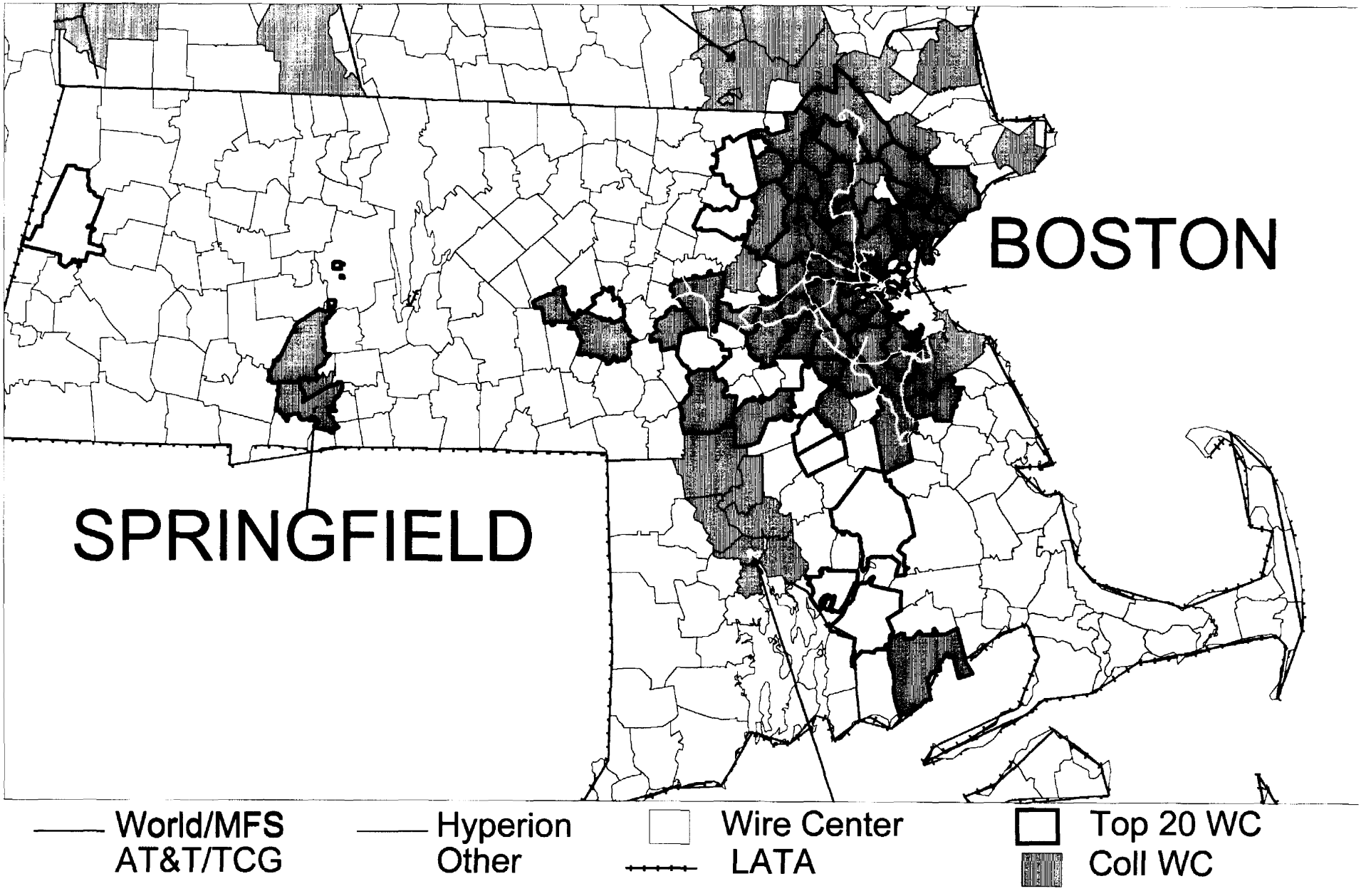


EXHIBIT 6

EXHIBIT 6

NEW JERSEY

In New Jersey, competing carriers have the ability to offer service to 91% of Bell Atlantic's special access demand. They are providing special access services over approximately 79,000 fiber miles of new, state-of-the-art networks in conjunction with numerous facilities collocated in Bell Atlantic's central offices. Bell Atlantic has provided competitors with collocation in 75 central offices. In these central offices, competitors have established 175 physical or virtual nodes. Competitors have also negotiated over 90 interconnection agreements with Bell Atlantic with 57 approved by the state regulatory agencies. Below is an overview of some of the competitors offering service in the state and maps showing the competitive networks.

AT&T/TCG completed construction of its network in 1993 and started providing special and dedicated access and private line services. The network spans 634 route miles and contains 30,432 fiber miles. TCG currently operates a Lucent 5ESS switch in Piscataway and is planning to install another switch in Princeton. TCG has been a certified CLEC since 1996. TCG's northern New Jersey network is unique because most of its fiber is not centralized in a main business district but serves a number of smaller areas. This network is also connected to its network serving metropolitan New York.

In 1997, TCG purchased Eastern Telelogic Corporation (ETC), the leading CLEC in Philadelphia and the neighboring cities of Camden, NJ and Wilmington, DE. With the ETC acquisition, TCG can join its northeast and mid-Atlantic networks to form a continuous network from D.C. through Wilmington, DE, Baltimore, MD., Philadelphia, PA., New York City and on to New England. In addition, the ETC acquisition provided TCG with ETC's existing customer base of local services customers. The majority of ETC's fiber in New Jersey is located in the Newark area.

TCG provides service to customers located in the following areas: Trenton, Jersey City, Newark, Bergen County, Heightstown, Lawrenceville, Plainsboro, Passaic, Princeton, Piscataway, New Brunswick, Ewing, Paramus, West Orange, Clifton, Parsippany, Hackensack, Bloomingdale, Ridgewood, Morristown, Middlesex and Secaucus. TCG has completed the following major expansion projects:

- construction of its fiber spur to Morristown from West Orange, which added approximately ten miles to the network;
- constructed an additional SONET ring in Trenton, which added approximately thirteen route miles to the network;
- a SONET ring at the northwestern tip of its network that extends the network further northwestward from Ridgewood and extends to Mahwah and Ringwood. This ring adds approximately seventeen route miles to the network; and
- a fiber spur from Princeton to Middletown in Monmouth County which adds approximately 35 miles to the network.

MCI WorldCom's MFS opened its network in 1993 and started offering special and dedicated access and private line services. MCI WorldCom operates 300 route miles of fiber optic network in northern New Jersey. The company is certified to provide CLEC services and has had an interconnection agreement with Bell Atlantic since 1996. MFS has two Ericsson AXE 10 voice switches installed in North New Jersey. The network provides service to customers in the following areas: the Counties of Bergen, Hudson, Union, Essex, Middlesex, Somerset and Morris; and the cities of Newark, Jersey City, Somerville, Bridgewater, Bernardsville, Bloomfield, West Orange, Orange, Passaic, Clifton and Whippany.

The fiber network extends as far north as Fairfield at Route 46 and as far south as New Brunswick. The western boundary of the network extends from Parsippany and follows I-287 to Bridgewater, one of five node locations in the MCI WorldCom Northern New Jersey network. The eastern boundary of the network parallels I-95 and runs to the north of Newark Airport into Hudson County. The network is connected to MCI WorldCom's New York City network via two fiber spurs crossing the Hudson River. The MCI WorldCom New York network serves New York City's five boroughs which enables

businesses with offices located in on-net buildings in both New Jersey and New York City to purchase local switched and dedicated services from a single provider

MCI WorldCom is currently building an electronic toll system in New Jersey. The project, known as EZ Pass, involves 415 miles of highway. The fiber will also be installed along the Delaware Turnpike and connect to the New Jersey Turnpike and may connect to its New York State Thruway network. MCI WorldCom will bury excess fiber and empty conduit alongside the fiber-optics needed to run the EZ Pass system and will market excess capacity on the toll system's fiber backbone.

MCI WorldCom's overall expansion plan is to develop a continuous northeastern network connecting its networks from Washington D.C. to New York City and on to Boston.

Hyperion Telecommunications, Inc. has two networks located in Morristown and New Brunswick. The Morristown network became operational in 1996 as a joint venture with TCI and Sutton Capital and it started offering special and dedicated access and private line services. The company has an agreement to purchase the other partners interest in 1998. The New Brunswick network began operating in 1995 also as a joint venture with TCI and Sutton Capital. The company has a similar agreement to purchase the other partners interest in this network. Hyperion's Mid-Atlantic cluster, which includes Virginia and Pennsylvania, is 1,330 route miles in length and contains 63,858 fiber miles. Hyperion has an interconnection agreement signed with Bell Atlantic and is a certified statewide local exchange, interexchange, and exchange access service provider.

Hyperion activated a 5ESS switch in April and began offering local switched services in 1998. Hyperion's New Jersey network consists of approximately 250 route miles throughout New Jersey.

WinStar Communications began offering local service in 1998, routing service through its switch in New York City. The company plans to install a switch in Newark to serve Hackensack, Paramus, Union City, East Rutherford, and Jersey City. WinStar targets small to medium-sized companies.

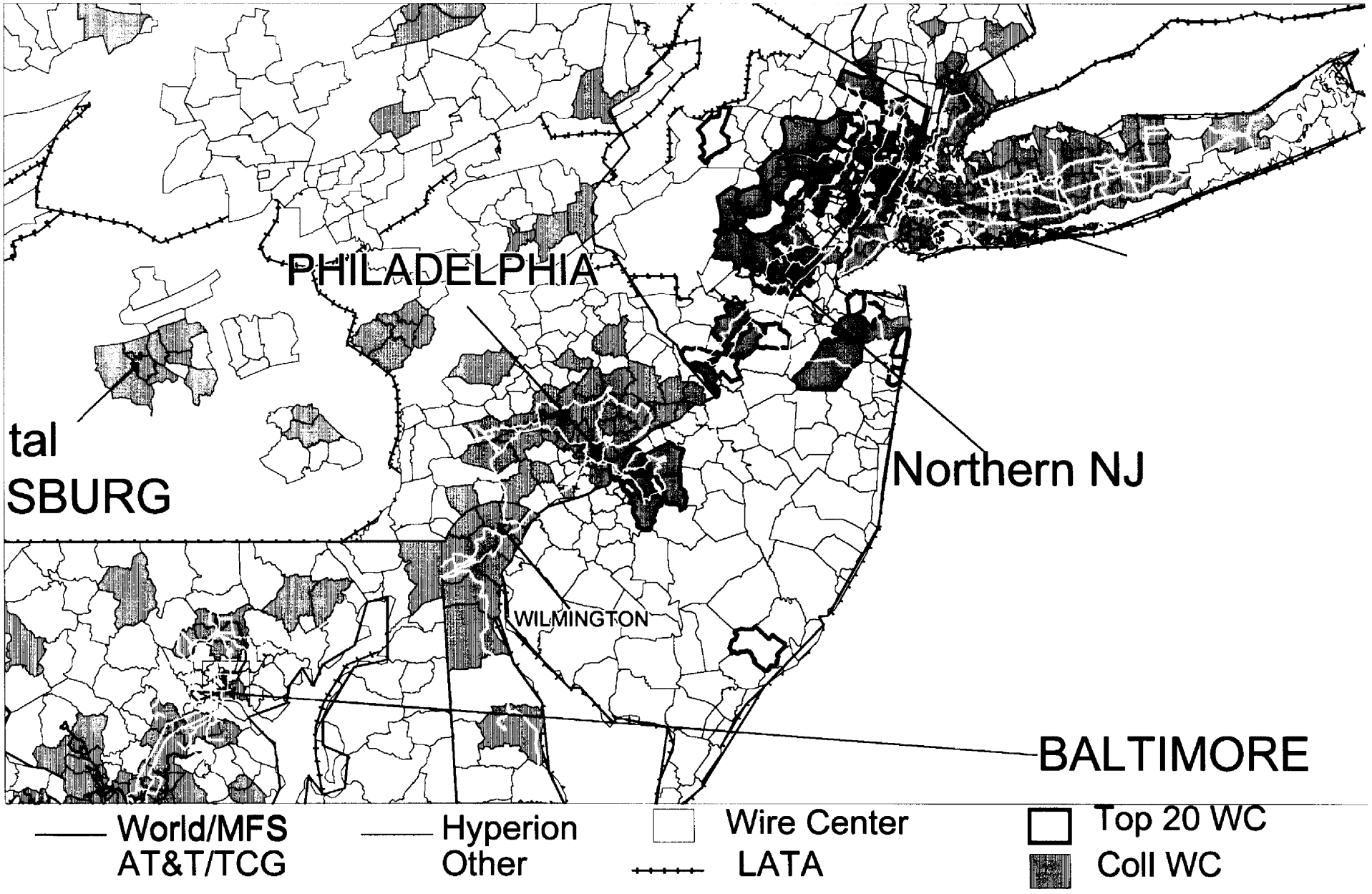
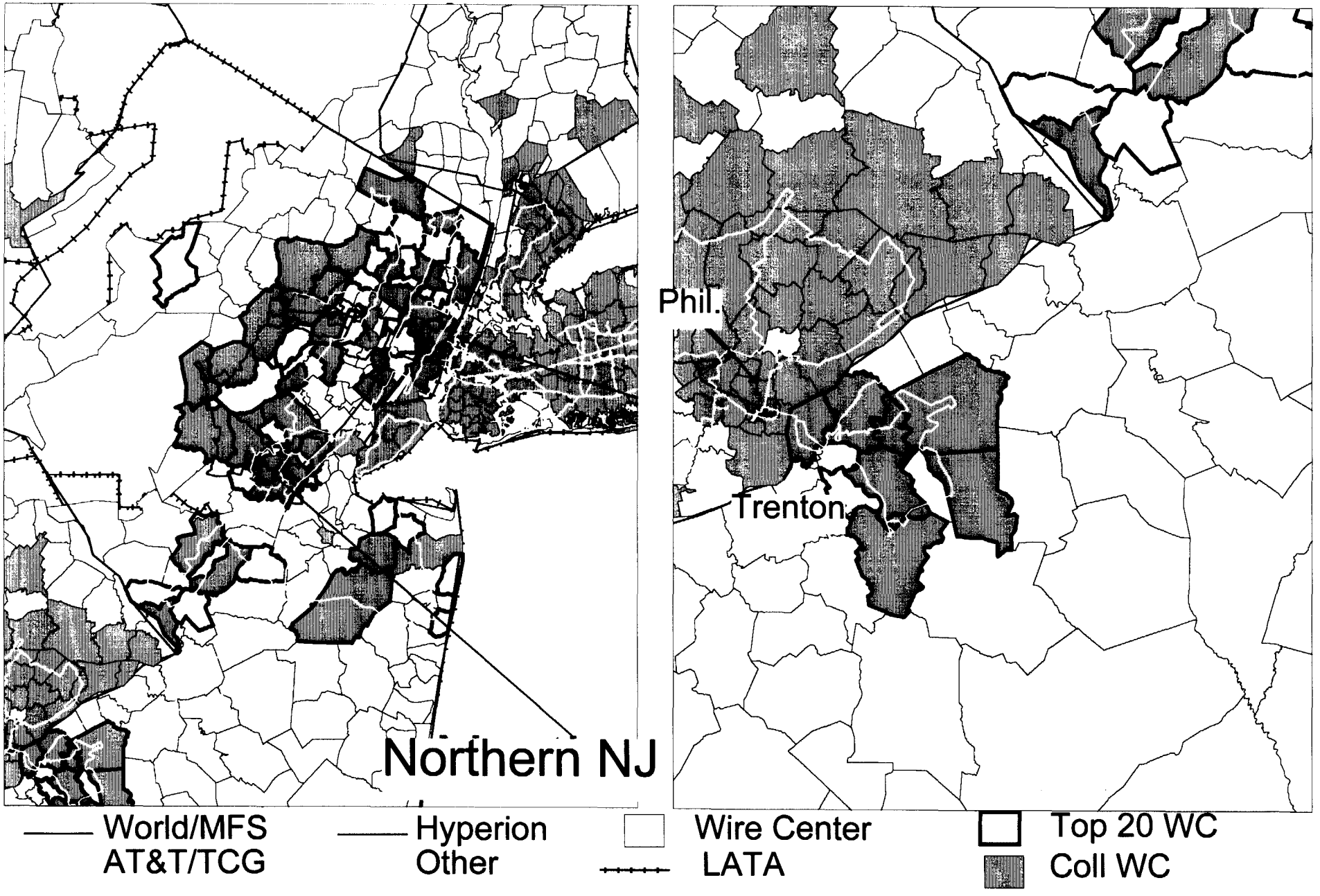
Conectiv owns and operates a network that spans more than 600 miles and stretches from southern New Jersey, into southeastern Pennsylvania, Delaware and Maryland. The

company plans to offer a package of services including high-speed data transport and special access, bundled toll, local, long-distance and services.

Conectiv is also expanding its network to serve the following areas: Atlantic City, Camden, Trenton, Middlesex County, Monmount County, Ocean County in New Jersey and Bethesda, Rockville, Salisbury, Silver Springs, Baltimore and Annapolis in Maryland.

MH Lightnet, Inc. constructed a network in Union that became operational in 1991. The network covers 130 route miles and contains 4,680 fiber miles. MH Lightnet has been a certified provider of special access, private line and dedicated services in New Jersey since 1992.

Competitive Networks



Competitive Networks