## 8. Network Usage and Growth

To monitor use of the public switched telephone network, the National Exchange Carrier Association (NECA) provides quarterly reports to the Commission on the volume of interstate access minutes of use (MOU) passing through the local switches. To supplement this information, local telephone companies that settle on a cost basis also provide, on an annual basis, their dial equipment minutes (DEM) and factors. The Joint Board recognizes that much of this information is not otherwise collected by any single entity and that reports can be received and consolidated by NECA. The 1997 DEM data and revisions of earlier data were contained in the June 1999 Monitoring Report. ${ }^{1}$ The minutes reported here are those minutes that pass through the incumbent local exchange carriers' switches.

This report presents information different from prior monitoring reports. Local switching minutes are now reported instead of CCL minutes for non-NECA common line tariff participants. Also, only total minutes are being reported and we no longer receive monthly data. NECA now reports total local switching minutes quarterly instead of the monthly carrier common line (CCL) access minutes, which were previously reported and shown in prior monitoring reports. There are three reasons for this.

First, access reform changes that were implemented on January 1, 1998, have already caused the CCL rates for some price-cap incumbent local exchange carriers (ILECs) to go to zero, and will eventually cause the CCL rates for all price-cap ILECs to go to zero. Since ILECs derive their reported CCL rates by dividing the CCL revenue by the CCL rate, this presents a reporting problem where a price-cap ILEC's CCL rates are zero.

Second, the amount of non-premium minutes in the quarterly reports has declined to a level where it is no longer significant. Non-premium minutes for 1984, which was the first period for which data are available, represented $13 \%$ of the total access minutes. For 1998, non-premium minutes represented only $0.07 \%$ of the total minutes.

Third, quarterly data, rather than monthly data, are sufficient and less burdensome for the carriers to maintain.

Table 8.1 presents NECA's latest available information on local access switching minutes for interstate traffic that pass through the ILEC's switches. Quarterly data are shown individually for each of the tier 1 carriers' study areas ${ }^{2}$, along with totals for the non-tier 1 carriers, and totals for the industry.

1 Preliminary summaries of the 1998 DEMs are expected to be filed by NECA in February, 2000, and the final 1998 DEMs are expected in March, 2000.

A study area is usually an operating company's operations in one state. The first two digits of the NECA study area code identify the state, and the remaining four digits identify the study area. The numerical code for each state is shown in Table 8.2.

The following descriptions of minutes of use measures are based on information provided by NECA:

Access MOU are "earned MOU" which are derived by dividing the earned revenues by the corresponding rate. This definition of access minutes is in agreement with the tariff review plan and ARMIS reports. Access minutes of use generating revenues have been discounted, which can produce distortions in revenue amounts. Further, revenues are normalized to include changes in terminating/originating and percent interstate use factors, billing adjustments, and the imputations of access charges (where applicable). Revenues are also calendarized, which will change derived minutes.

Access MOU include the only the domestic portion of international calls. Similarly, WATS and 800/888/877 calls are counted only on one end of the call. ${ }^{3}$ Finally, minutes include time for incomplete calls and setup time.

3 WATS calls generate access minutes only at the terminating end of the call and 800/888/877 calls generate access minutes only at the originating end of the call; both types of minutes are counted in the terminating minutes.

TABLE 8.1

TOTAL INTERSTATE ACCESS MINUTES

| State | Study Area ID | Study Area - Abbreviation | Tier | $\begin{gathered} \text { 01/01/1999 То } \\ 03 / 31 / 1999 \\ \hline \end{gathered}$ | $\begin{gathered} \text { 04/01/1999 То } \\ 06 / 30 / 1999 \\ \hline \end{gathered}$ | $\begin{gathered} \text { 07/01/1999 To } \\ 09 / 30 / 1999 \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alabama | 250281 | CONTEL AL DBA GTE AL | 1 | 56,633,096 | 108,400,666 | 82,133,354 |
| Alabama | 250293 | GTE SOUTH INC.- AL | 1 | 124,981,467 | 134,490,319 | 137,412,500 |
| Alabama | 255181 | SO CENTRAL BELL-AL | 1 | 1,433,977,412 | 1,500,069,339 | 1,459,904,656 |
| Arizona | 452302 | CONTEL CALIF - AZ | 1 | 9,419,379 | 9,043,719 | 8,670,646 |
| Arizona | 455101 | U S WEST INC. - AZ | 1 | 2,721,180,432 | 2,711,856,920 | 2,673,904,635 |
| Arkansas | 402080 | GTE SOUTHWEST INC-AR | 1 | 64,287,768 | 66,132,458 | 68,095,621 |
| Arkansas | 405211 | SOUTHWESTERN BELL-AR | 1 | 777,008,539 | 818,387,170 | 821,327,893 |
| California | 542302 | CONTEL OF CALIFORNIA | 1 | 205,814,519 | 202,911,799 | 204,425,250 |
| California | 542319 | GTC OF CALIFORNIA | 1 | 2,256,746,443 | 2,437,195,787 | 2,386,230,322 |
| California | 542344 | WEST COAST TEL OF CA | 1 | 9,471,248 | 9,270,368 | 10,234,783 |
| California | 545170 | PACIFIC BELL | 1 | 10,070,408,264 | 9,944,071,295 | 10,253,487,862 |
| Colorado | 465102 | U S WEST INC. - CO | 1 | 2,714,081,600 | 2,735,095,700 | 2,767,336,891 |
| Connecticut | 135200 | SOUTHERN NEW ENGLAND | 1 | 2,257,363,376 | 2,248,734,031 | 2,292,830,051 |
| Delaware | 565010 | DIAMOND STATE TEL. | 1 | 571,677,173 | 571,795,044 | 587,292,794 |
| District of Columbia | 575020 | C \& P TEL CO OF WASH | 1 | 745,096,415 | 799,924,419 | 777,149,784 |
| Florida | 210328 | GTE FLORIDA INC. | 1 | 1,971,268,482 | 2,094,314,491 | 1,889,826,819 |
| Florida | 210341 | SPRINT-FLORIDA , INC. | 1 | 1,763,895,458 | 1,719,408,464 | 1,612,897,882 |
| Florida | 215191 | SOUTHERN BELL - FL | 1 | 5,709,830,978 | 5,756,270,722 | 5,387,599,690 |
| Georgia | 223037 | ALLTEL GEORGIA COMM. | 1 | 194,442,272 | 213,182,345 | 200,282,279 |
| Georgia | 225192 | SOUTHERN BELL- GA | 1 | 3,810,179,721 | 3,936,465,854 | 3,721,004,738 |
| Hawaii | 623100 | GTE HAWAIIAN TEL. CO | 1 | 573,182,018 | 527,060,848 | 516,281,038 |
| Idaho | 472416 | GTE NORTHWEST INC-ID | 1 | 142,613,114 | 140,248,573 | 146,337,267 |
| Idaho | 475103 | U S WEST INC. - ID | 1 | 464,185,094 | 474,744,925 | 483,956,281 |
| Idaho | 475162 | U S WEST INC. - ID | 1 | 27,911,521 | 28,543,339 | 28,759,986 |
| Illinois | 341015 | GTE NORTH INC. - IL | 1 | 441,368,232 | 443,974,633 | 437,939,398 |
| Illinois | 341036 | CONTEL IL DBA GTE IL | 1 | 134,599,653 | 126,310,196 | 128,249,701 |
| Illinois | 343035 | GTE SOUTH- IL | 1 | 26,495,888 | 24,743,211 | 27,057,835 |
| Illinois | 345070 | ILLINOIS BELL TEL CO | 1 | 5,251,072,103 | 5,302,480,982 | 5,322,446,495 |
| Indiana | 320772 | GTE NORTH INC. - IN | 1 | 604,121,386 | 605,523,076 | 609,454,270 |
| Indiana | 320779 | CONTEL-IN DBA GTE IN | 1 | 123,023,475 | 123,343,065 | 127,075,910 |
| Indiana | 320832 | UTC OF INDIANA | 1 | 157,461,635 | 160,029,943 | 160,107,909 |
| Indiana | 323034 | CONTEL SOUTH- GTE IN | 1 | 6,200,234 | 6,080,108 | 6,239,581 |
| Indiana | 325080 | INDIANA BELL TEL CO | 1 | 1,533,691,438 | 1,582,010,684 | 1,600,323,160 |
| lowa | 351186 | GTE NORTH INC. - IA | 1 | 81,554,812 | 78,803,006 | 81,218,496 |
| lowa | 351207 | CONTEL IA DBA GTE IA | 1 | 54,357,184 | 54,850,081 | 55,182,669 |
| lowa | 351790 | CONTEL KS DBA GTE IA | 1 | 55,318,161 | 54,601,759 | 55,793,229 |
| lowa | 355141 | U S WEST INC. - IA | 1 | 909,955,907 | 910,940,791 | 917,523,289 |
| Kansas | 415214 | SOUTHWESTERN BELL-KS | 1 | 1,149,273,657 | 1,187,097,134 | 1,180,508,658 |
| Kentucky | 260407 | GTE SOUTH INC. - KY | 1 | 326,026,467 | 355,293,992 | 353,318,515 |
| Kentucky | 260410 | CONTEL KY DBA GTE KY | 1 | 46,933,625 | 59,094,127 | 60,477,779 |
| Kentucky | 265061 | CINCINNATI BELL - KY | 1 | 123,798,528 | 122,763,209 | 122,361,833 |
| Kentucky | 265182 | SO CENTRAL BELL -KY | 1 | 938,341,485 | 967,362,057 | 973,973,870 |
| Louisiana | 275183 | SO CENTRAL BELL - LA | 1 | 1,674,800,188 | 1,733,422,709 | 1,713,511,616 |
| Maine | 105111 | NEW ENGLAND TEL-ME | 1 | 514,956,179 | 534,799,208 | 597,863,892 |
| Maryland | 185030 | C \& P TEL CO OF MD | 1 | 3,069,539,260 | 3,097,539,351 | 3,169,413,525 |
| Massachusetts | 115112 | NEW ENGLAND TEL-MA | 1 | 3,657,336,018 | 3,714,024,676 | 3,757,849,900 |
| Michigan | 310695 | GTE NORTH INC. - MI | 1 | 373,915,309 | 376,954,641 | 388,308,402 |
| Michigan | 313033 | CONTEL-SOUTH DBA GTE | 1 | 33,257,884 | 32,613,232 | 36,315,867 |
| Michigan | 315090 | MICHIGAN BELL TEL CO | 1 | 3,076,510,434 | 3,184,557,887 | 3,182,110,025 |
| Minnesota | 365142 | U S WEST INC. - MN | 1 | 1,816,285,341 | 1,816,864,878 | 1,822,025,866 |
| Mississippi | 285184 | SO CENTRAL BELL -MS | 1 | 1,071,778,090 | 1,119,062,971 | 1,132,829,914 |
| Missouri | 421186 | GTE NORTH INC. - MO | 1 | 91,946,733 | 93,451,389 | 92,685,502 |
| Missouri | 421789 | KS ST DBA GTE E. MO | 1 | 2,574,770 | 2,546,825 | 2,492,696 |
| Missouri | 421846 | CONT MO DBA GTE MO | 1 | 41,656,825 | 41,181,634 | 41,614,823 |
| Missouri | 421922 | CONTEL MO DBA GTE MO | 1 | 186,606,837 | 196,514,751 | 204,404,664 |
| Missouri | 425213 | SOUTHWESTERN BELL-MO | 1 | 1,970,450,062 | 2,033,669,001 | 2,044,404,035 |
| Montana | 485104 | U S WEST INC. - MT | 1 | 358,444,434 | 369,160,127 | 377,992,672 |
| Nebraska | 371186 | GTE NORTH INC. - NE | 1 | 40,169,243 | 39,741,023 | 39,673,465 |
| Nebraska | 371568 | ALIANT COMM. CO | 1 | 202,589,217 | 202,881,304 | 205,507,539 |
| Nebraska | 375143 | U S WEST INC. - NE | 1 | 503,795,957 | 504,356,407 | 498,842,550 |
| Nevada | 552302 | CONTEL OF CALIF- NV | 1 | 42,717,857 | 40,936,696 | 41,305,441 |
| Nevada | 552348 | CENTEL OF NV | 1 | 960,343,415 | 981,930,826 | 975,672,576 |
| Nevada | 555173 | NEVADA BELL | 1 | 231,705,351 | 228,555,935 | 240,838,589 |
| New Hampshire | 125113 | NEW ENGLAND TEL-NH | 1 | 881,461,472 | 874,872,071 | 888,136,252 |
| New Jersey | 160138 | UNTED TEL - NJ. INC | 1 | 198,442,324 | 197,180,596 | 192,693,911 |
| New Jersey | 165120 | NEW JERSEY BELL | 1 | 5,731,678,810 | 5,785,253,644 | 5,867,611,885 |

TABLE 8.1

TOTAL INTERSTATE ACCESS MINUTES

| State | Study Area ID | Study Area - Abbreviation | Tier | $\begin{gathered} \text { 01/01/1999 To } \\ 03 / 31 / 1999 \\ \hline \end{gathered}$ | $\begin{gathered} 04 / 01 / 1999 \text { To } \\ 06 / 30 / 1999 \\ \hline \end{gathered}$ | $\begin{gathered} \text { 07/01/1999 То } \\ 09 / 30 / 1999 \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New Mexico | 492080 | GTE SOUTHWEST INC-NM | 1 | 40,268,035 | 41,631,249 | 41,587,181 |
| New Mexico | 492177 | CON. WEST DBA GTE NM | 1 | 33,340,083 | 33,335,022 | 34,954,348 |
| New Mexico | 495105 | U S WEST INC. - NM | 1 | 755,180,755 | 791,873,689 | 813,403,398 |
| New York | 150121 | FRONTIER- ROCHESTER | 1 | 341,734,281 | 307,935,949 | 321,360,705 |
| New York | 154532 | CITIZENS TELECOM-NY | 1 | 165,474,667 | 165,643,710 | 179,965,972 |
| New York | 154533 | CITIZENS RED HOOK | 1 | 9,510,039 | 9,519,753 | 10,342,873 |
| New York | 154534 | CITIZENS-WEST. CNTY | 1 | 15,216,061 | 15,231,606 | 16,548,595 |
| New York | 155130 | NEW YORK TEL CO | 1 | 8,790,078,217 | 9,002,855,608 | 8,864,239,467 |
| North Carolina | 230470 | CAROLINA TEL \& TEL | 1 | 885,290,342 | 944,641,271 | 953,919,939 |
| North Carolina | 230479 | GTE SOUTH INC - NC | 1 | 197,631,634 | 220,030,438 | 217,058,994 |
| North Carolina | 230509 | CONTEL NC DBA GTE NC | 1 | 88,863,880 | 100,279,659 | 112,392,012 |
| North Carolina | 235193 | SOUTHERN BELL - NC | 1 | 2,030,147,179 | 1,975,279,191 | 2,096,449,713 |
| North Dakota | 385144 | U S WEST INC. - ND | 1 | 207,241,601 | 212,282,433 | 214,314,634 |
| Ohio | 300615 | GTE NORTH INC. - OH | 1 | 549,755,090 | 562,235,140 | 560,486,048 |
| Ohio | 300661 | UTC OF OHIO | 1 | 374,004,169 | 376,178,916 | 365,856,824 |
| Ohio | 305062 | CINCINNATI BELL -OH | 1 | 490,585,364 | 503,990,225 | 501,876,825 |
| Ohio | 305150 | OHIO BELL TEL. CO | 1 | 2,571,082,604 | 2,638,857,759 | 2,639,762,794 |
| Oklahoma | 432080 | GTE SOUTHWEST INC-OK | 1 | 99,445,960 | 98,507,483 | 98,428,876 |
| Oklahoma | 435215 | SOUTHWESTERN BELL-OK | 1 | 1,189,805,554 | 1,258,738,956 | 1,245,106,686 |
| Oregon | 532416 | GTE NORTHWEST INC-OR | 1 | 424,608,431 | 436,158,320 | 429,708,398 |
| Oregon | 535163 | U S WEST INC. - OR | 1 | 1,193,483,685 | 1,211,298,577 | 1,236,391,312 |
| Pennsylvania | 170169 | GTE NORTH INC. - PA | 1 | 349,704,173 | 354,289,793 | 356,880,350 |
| Pennsylvania | 170170 | CONTEL PA DBA GTE PA | 1 | 46,071,415 | 46,347,949 | 49,084,749 |
| Pennsylvania | 170201 | GTE NORTH INC. - PA | 1 | 36,697,965 | 34,009,315 | 40,143,370 |
| Pennsylvania | 170209 | UTC OF PENNSYLVANNIA | 1 | 239,783,738 | 241,136,385 | 239,983,506 |
| Pennsylvania | 175000 | BELL OF PENNSYLVANIA | 1 | 4,484,002,744 | 4,488,711,755 | 4,455,959,200 |
| Puerto Rico | 633200 | PRTC - CENTRAL | 1 | 76,716,321 | 88,570,987 | 90,467,517 |
| Puerto Rico | 633201 | PUERTO RICO TEL CO | 1 | 549,367,562 | 582,180,755 | 614,037,469 |
| Rhode Island | 585114 | NEW ENGLAND TEL - RI | 1 | 611,383,922 | 624,059,609 | 628,855,843 |
| South Carolina | 240479 | GTE SOUTH INC. - SC | 1 | 159,878,901 | 183,711,295 | 205,385,623 |
| South Carolina | 240526 | CONTEL-SC DBA GTE SC | 1 | 16,392,366 | 34,472,195 | 25,123,534 |
| South Carolina | 245194 | SOUTHERN BELL -SC | 1 | 1,261,864,941 | 1,281,792,023 | 1,306,315,905 |
| South Dakota | 395145 | U S WEST INC. - SD | 1 | 284,372,454 | 288,883,120 | 289,968,151 |
| Tennessee | 290567 | UNITED INTER-MT-TN | 1 | 172,463,635 | 176,088,240 | 173,051,770 |
| Tennessee | 295185 | SO CENTRAL BELL - TN | 1 | 2,145,161,342 | 2,184,515,924 | 2,136,411,018 |
| Texas | 442080 | GTE SOUTHWEST INC-TX | 1 | 1,202,960,264 | 1,242,951,272 | 1,231,378,544 |
| Texas | 442154 | CONTEL TX DBA GTE TX | 1 | 109,363,361 | 120,255,210 | 130,076,884 |
| Texas | 445216 | SOUTHWESTERN BELL-TX | 1 | 6,195,858,278 | 6,469,121,808 | 6,422,592,544 |
| Utah | 505107 | U S WEST INC. - UT | 1 | 999,092,339 | 1,002,522,650 | 1,008,228,631 |
| Vermont | 145115 | NEW ENGLAND TEL-VT | 1 | 347,033,615 | 337,686,234 | 348,892,698 |
| Virginia | 190233 | CONTEL VA DBA GTE VA | 1 | 524,607,818 | 531,812,247 | 542,977,749 |
| Virginia | 190479 | GTE SOUTH INC. - VA | 1 | 28,912,658 | 30,342,739 | 30,550,737 |
| Virginia | 190567 | UNITED INTER-MT-VA | 1 | 74,764,035 | 76,251,787 | 76,251,987 |
| Virginia | 195040 | C \& P TEL CO OF VA | 1 | 3,315,504,892 | 3,435,822,795 | 3,448,508,713 |
| Washington | 522416 | GTE NORTHWEST INC-WA | 1 | 622,831,223 | 649,453,740 | 689,403,218 |
| Washington | 522449 | CONTEL NW DBA GTE-WA | 1 | 59,716,580 | 59,849,388 | 62,776,141 |
| Washington | 525161 | U S WEST INC. - WA | 1 | 2,143,044,668 | 2,144,167,910 | 2,125,335,379 |
| West Virginia | 205050 | C \& P TEL OF WV | 1 | 667,357,338 | 675,022,905 | 684,946,882 |
| Wisconsin | 330886 | GTE NORTH INC. - WI | 1 | 285,314,027 | 290,359,113 | 316,800,457 |
| Wisconsin | 335220 | WISCONSIN BELL | 1 | 1,379,418,970 | 1,402,407,613 | 1,379,128,969 |
| Wyoming | 515108 | U S WEST INC. - WY | 1 | 269,350,435 | 281,463,145 | 296,972,858 |
|  |  | NON-TIER 1 |  | 9,165,049,420 | 9,400,472,301 | 9,580,722,334 |
|  |  | Total Tier 1 |  | 126,483,951,280 | 128,819,757,286 | 128,611,387,216 |
|  |  | Total Industry |  | 135,649,000,700 | 138,220,229,587 | 138,192,109,550 |


| TABLE 8.2 <br> STATE CODE REFERENCE |  |  |  |
| :---: | :---: | :---: | :---: |
| SORTED BY STATE ALPHABE | tically | SORTED | TATE CODE NUMERICALLY |
| STATE | STATE CODE | STATE CODE | STATE |
| ALABAMA | 25 | 10 | MAINE |
| ALASKA | 61 | 11 | MASSACHUSETTS |
| ARIZONA | 45 | 12 | NEW HAMPSHIRE |
| ARKANSAS | 40 | 13 | CONNECTICUT |
| CALIFORNIA | 54 | 14 | VERMONT |
| COLORADO | 46 | 15 | NEW YORK |
| CONNECTICUT | 13 | 16 | NEW JERSEY |
| DELAWARE | 56 | 17 | PENNSYLVANIA |
| DISTRICT OF COLUMBIA | 57 | 18 | MARYLAND |
| FLORIDA | 21 | 19 | VIRGINIA |
| GEORGIA | 22 | 20 | WEST VIRGINIA |
| GUAM | 66 | 21 | FLORIDA |
| HAWAll | 62 | 22 | GEORGIA |
| IDAHO | 47 | 23 | NORTH CAROLINA |
| ILLINOIS | 34 | 24 | SOUTH CAROLINA |
| INDIANA | 32 | 25 | ALABAMA |
| IOWA | 35 | 26 | KENTUCKY |
| KANSAS | 41 | 27 | LOUISIANA |
| KENTUCKY | 26 | 28 | MISSISSIPPI |
| LOUISIANA | 27 | 29 | TENNESSEE |
| MAINE | 10 | 30 | OHIO |
| MARYLAND | 18 | 31 | MICHIGAN |
| MASSACHUSETTS | 11 | 32 | INDIANA |
| MICHIGAN | 31 | 33 | WISCONSIN |
| MINNESOTA | 36 | 34 | ILLINOIS |
| MISSISSIPPI | 28 | 35 | IOWA |
| MISSOURI | 42 | 36 | MINNESOTA |
| MONTANA | 48 | 37 | NEBRASKA |
| NEBRASKA | 37 | 38 | NORTH DAKOTA |
| NEVADA | 55 | 39 | SOUTH DAKOTA |
| NEW HAMPSHIRE | 12 | 40 | ARKANSAS |
| NEW JERSEY | 16 | 41 | KANSAS |
| NEW MEXICO | 49 | 42 | MISSOURI |
| NEW YORK | 15 | 43 | OKLAHOMA |
| NORTH CAROLINA | 23 | 44 | TEXAS |
| NORTH DAKOTA | 38 | 45 | ARIZONA |
| NORTHERN MARIANA ISLANDS | 65 | 46 | COLORADO |
| OHIO | 30 | 47 | IDAHO |
| OKLAHOMA | 43 | 48 | MONTANA |
| OREGON | 53 | 49 | NEW MEXICO |
| PENNSYLVANIA | 17 | 50 | UTAH |
| PUERTO RICO | 63 | 51 | WYOMING |
| RHODE ISLAND | 58 | 52 | WASHINGTON |
| SOUTH CAROLINA | 24 | 53 | OREGON |
| SOUTH DAKOTA | 39 | 54 | CALIFORNIA |
| TENNESSEE | 29 | 55 | NEVADA |
| TEXAS | 44 | 56 | DELAWARE |
| UTAH | 50 | 57 | DISTRICT OF COLUMBIA |
| VERMONT | 14 | 58 | RHODE ISLAND |
| VIRGIN ISLANDS | 64 | 61 | ALASKA |
| VIRGINIA | 19 | 62 | HAWAII |
| WASHINGTON | 52 | 63 | PUERTO RICO |
| WEST VIRGINIA | 20 | 64 | VIRGIN ISLANDS |
| WISCONSIN | 33 | 65 | NORTHERN MARIANA ISLANDS |
| WYOMING | 51 | 66 | GUAM |

