

# **Voice Telephone Services: Status as of December 31, 2024**

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Office of Economics and Analytics  
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## Voice Telephone Services: Status as of December 31, 2024

### Introduction

The Commission has used FCC Form 477 to collect subscribership information from providers of voice telephone services – incumbent local exchange carriers (ILECs), competitive local exchange carriers (CLECs), and mobile voice providers – since December 1999.<sup>1</sup> The Commission has required interconnected Voice over Internet Protocol (“interconnected VoIP”) service providers to report subscribership information since December 2008.<sup>2</sup> Also, starting with the data reported for 2014, Form 477 has been modified to distinguish “over-the-top” (colloquially, “bring your own broadband”) interconnected VoIP subscriptions from other interconnected VoIP subscriptions.<sup>3</sup>

### Comparison to Local Telephone Competition Report

This report was previously titled *Local Telephone Competition*. Reports under the earlier title summarized Form 477 data through December 31, 2013. Reports under the current title provide much of the summarized data as supplemental spreadsheet files, available at <https://www.fcc.gov/voice-telephone-services-report>. A crosswalk between data elements in this report and data elements in the *Local Telephone Competition* report is available at that page.

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<sup>1</sup> An Incumbent Local Exchange Carrier is an entity that was providing local exchange telephone service in a particular area on February 8, 1996, the date on which the Telecommunications Act of 1996 was enacted into law. *See* 47 C.F.R. § 51.5.

<sup>2</sup> The FCC’s rules (at 47 C.F.R. § 9.3) state:

An interconnected Voice over Internet Protocol (VoIP) service is a service that:

- (1) Enables real-time, two-way voice communications;
- (2) Requires a broadband connection from the user’s location;
- (3) Requires Internet protocol-compatible customer premises equipment; and
- (4) Permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network.

We note that the current interpretation of element (4) of the definition excludes certain VoIP services (e.g., those offered by Skype) and subscribers to those services are not reported on Form 477.

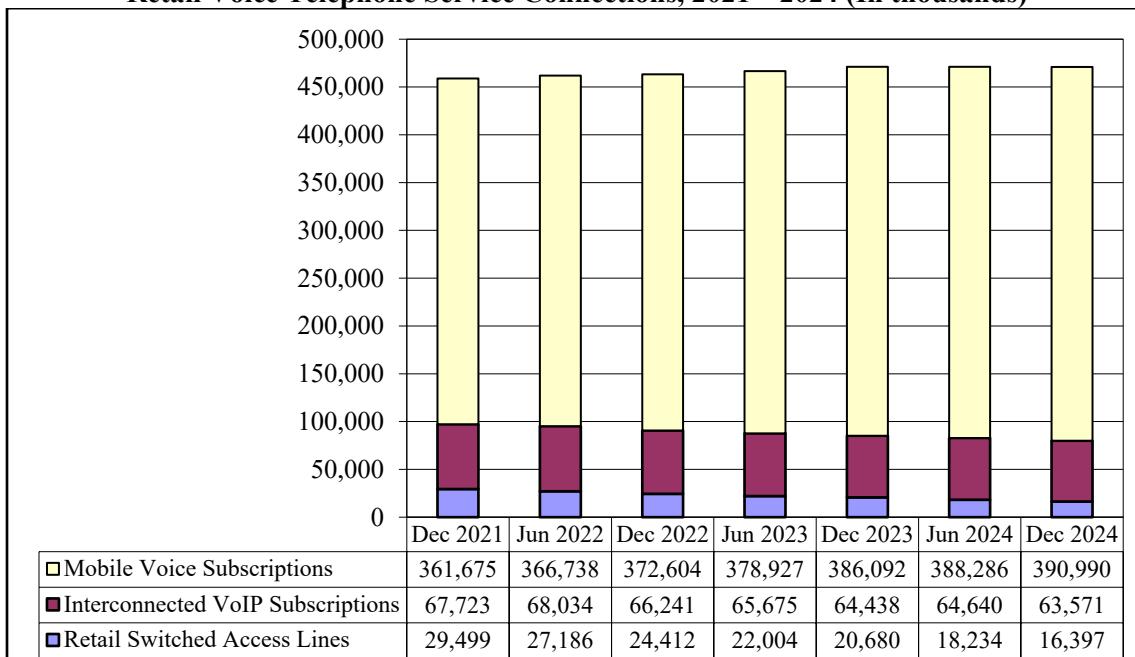
<sup>3</sup> The Technical Notes and the Glossary that appear at the end of this report provide more-detailed information about the current Form 477 and the meaning of terms used in this report. To be consistent with modifications to Form 477 adopted in 2013 (to be effective for reporting June 2014 and later data), this report no longer uses the terms “standalone VoIP” and “broadband bundle.” Standalone VoIP in the earlier, Local Telephone Competition, reports has a different meaning from “over-the-top” VoIP in this report. In particular, subscriptions reported as standalone VoIP for December 2013 and earlier dates included over-the-top subscriptions as defined in this report and also video-plus-VoIP service subscriptions sold by cable TV system operators and other entities that own last-mile facilities to end-user premises. We note that, accordingly, 13% of total interconnected VoIP subscriptions were categorized as standalone VoIP in December 2013 and, by contrast, 10% of total interconnected VoIP subscriptions were categorized as over-the-top VoIP in December 2014.

## Retail Voice Telephone Service Connections

Retail voice telephone service customers are served by two wireline technologies – end-user switched access lines and interconnected VoIP subscriptions – and by mobile wireless subscriptions.<sup>4</sup>

- In December 2024, there were 16 million end-user switched access lines in service, 64 million interconnected VoIP subscriptions, and 391 million mobile subscriptions, for a total of 471 million retail voice telephone service connections in the United States. See Figure 1.
- Over the three-year period presented in Figure 1, interconnected VoIP subscriptions declined at a compound annual growth rate of 2.1%, mobile voice subscriptions increased at a compound annual growth rate of 2.6%, and retail switched access lines declined at a compound annual growth rate of 17.8% per year.<sup>5</sup>

**Figure 1**  
**Retail Voice Telephone Service Connections, 2021 – 2024 (In thousands)**



Note: Some previously published data have been revised.

Source: FCC Form 477.

- Of the 80 million wireline retail voice telephone service connections (including both switched access lines and interconnected VoIP subscriptions) in December 2024, 28 million (or 35%) were residential connections and 52 million (or 65%) were business connections.<sup>6</sup> See Figure 2.

<sup>4</sup> The presentation of mobile wireless telephone subscriber counts in this report does not constitute, or imply, Commission analysis of the extent to which wireline and mobile wireless telephone services are demand substitutes or complements in general or in any particular situation.

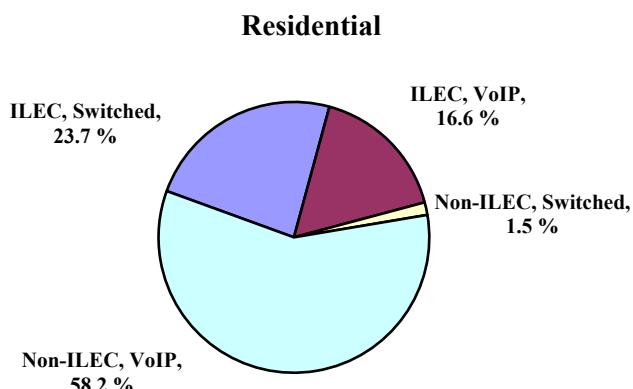
<sup>5</sup> The compound annual growth rate is a smoothed rate of growth calculated in three steps. First, divide the ending value by the beginning value. Second, raise the result of that division to a power equal to one divided by the number of years in the period (in this case, 3 years, so the power is 1/3). Third, subtract the number one from the result of the second step.

**Figure 2**  
**Wireline Retail Voice Telephone Service Connections by Technology, Regulatory Status, And Customer Type as of December 31, 2024 (In thousands)**

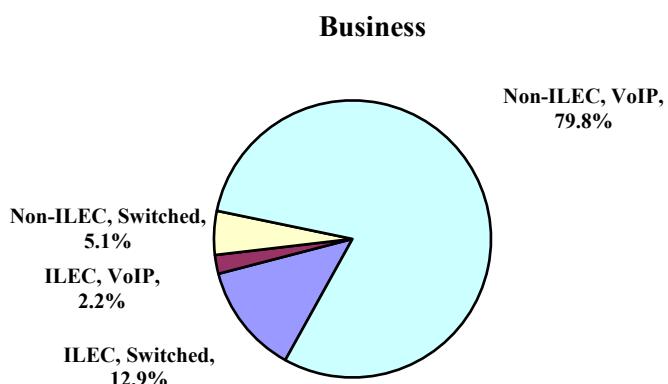
Total	Switched Access Lines	Interconnected VoIP	Total
ILEC	13,313	5,769	19,081
Non-ILEC	3,084	57,803	60,887
Total	16,397	63,571	79,969
<b>Residential</b>			
ILEC	6,591	4,623	11,214
Non-ILEC	420	16,204	16,624
Residential Total	7,011	20,827	27,838
<b>Business</b>			
ILEC	6,722	1,145	7,867
Non-ILEC	2,665	41,599	44,263
Business Total	9,387	42,744	52,131

Notes: Figures may not sum to totals due to rounding. A voice-service affiliate of an ILEC that is operating outside of the ILEC's traditional service area ("study area") is a Non-ILEC.

Source: FCC Form 477.



Source: FCC Form 477.



Source: FCC Form 477.

- Cross-classified by technology and the retailer's regulatory status in Figure 2, the 28 million wireline residential connections in December 2024 were: 23.7% ILEC switched access lines, 58.2% non-ILEC interconnected VoIP subscriptions, 16.6% ILEC interconnected VoIP subscriptions, and 1.5% non-ILEC switched access lines. Similarly, the 52 million wireline business connections were: 12.9% ILEC switched access lines, 79.8% non-ILEC interconnected VoIP subscriptions, 2.2% ILEC interconnected VoIP subscriptions, and 5.1% non-ILEC switched access lines.

## Retail Service Relationships

Respondents submit two types of information about retail service relationships on the current Form 477.

- Interconnected VoIP service retailers distinguish over-the-top (“OTT”) interconnected VoIP subscriptions—where the end user accesses the service using a broadband connection from an entity that is not affiliated with the VoIP service retailer—from all other interconnected VoIP subscriptions.<sup>7</sup> See Figure 3.
- Retailers of switched access lines and retailers of interconnected VoIP service distinguish between sales to end users who also purchase Internet access from them (including affiliates) and those who do not. See Figure 4.

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<sup>7</sup> A broadband connection may or may not provide the end user with internet access.

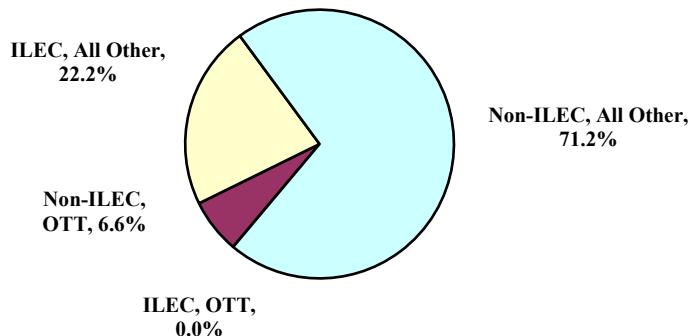
**Figure 3**  
**Interconnected VoIP Subscribership by Reported Service Features, Regulatory Status, and Customer Type as of December 31, 2024 (In thousands)**

Total	Over-the-Top (OTT)	All Other VoIP	Total
ILEC	20	5,749	5,769
Non-ILEC	26,172	31,631	57,803
Total	26,191	37,380	63,571
<b>Residential</b>			
ILEC	6	4,617	4,623
Non-ILEC	1,371	14,833	16,204
Residential Total	1,377	19,450	20,827
<b>Business</b>			
ILEC	14	1,131	1,145
Non-ILEC	24,800	16,799	41,599
Business Total	24,814	17,930	42,744

Note: Figures may not sum to totals due to rounding.

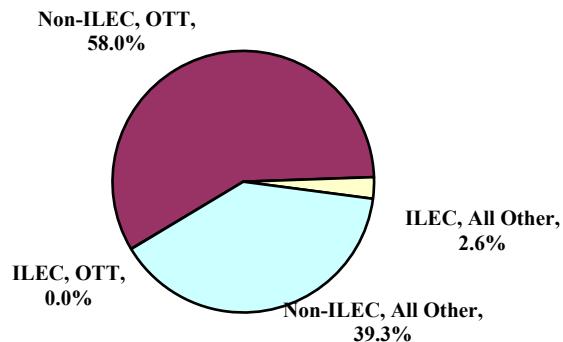
Source: FCC Form 477.

### Residential



Source: FCC Form 477.

### Business



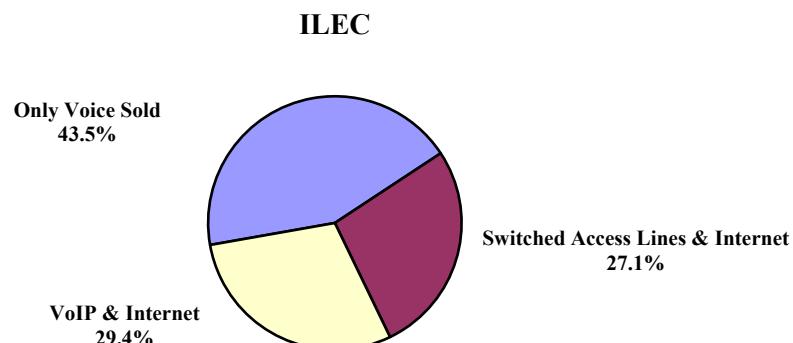
Source: FCC Form 477.

**Figure 4**  
**Retail Relationships of Wireline Voice Telephone Service with Internet Access Service**  
**By Regulatory Status as of December 31, 2024 (In thousands)**

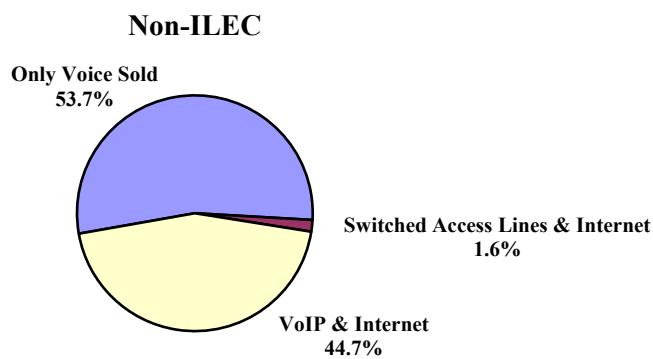
<b>Total</b>	<b>ILEC</b>	<b>Non-ILEC</b>	<b>Total</b>
Switched Access Lines	13,313	3,084	16,397
Over-the-Top VoIP	20	26,172	26,191
All Other VoIP	5,749	31,631	37,380
<b>Total</b>	<b>19,081</b>	<b>60,887</b>	<b>79,969</b>
<b>Sold with Internet</b>			
Switched Access Lines	5,170	973	6,143
Over-the-Top VoIP	0	0	0
All Other VoIP	5,609	27,225	32,834
<b>Total</b>	<b>10,779</b>	<b>28,198</b>	<b>38,977</b>
<b>Sold Without Internet</b>			
Switched Access Lines	8,143	2,111	10,254
Over-the-Top VoIP	20	26,172	26,191
All Other VoIP	140	4,406	4,546
<b>Total</b>	<b>8,302</b>	<b>32,689</b>	<b>40,992</b>

Note: Figures may not sum totals due to rounding.

Source: FCC Form 477.



Source: FCC Form 477.



Source: FCC Form 477.

## Detailed Voice Telephone Services Data

- Table 1 summarizes national-level voice telephone service subscription data for December 2023, and for June and December 2024 for individual data elements collected by FCC Form 477.
- Table 2 shows the number of entities that reported subscription data for the same time periods.
- Table 3 shows residential wireline voice telephone service connections by state for December 2024.
- Table 4 shows mobile voice telephone service subscriptions by state for December 2024.

Tables 1, 2, 3, and 4 are available in Excel format at <https://www.fcc.gov/voice-telephone-services-report>. Also available at that page are:

- State-level Subscriptions table in Excel format (data back to December 2023)
- State-level Number of Providers table in Excel format (data back to December 2023)
- County-level Subscription information in Excel format (data back to June 2014)
- CSV-format file of the consistent data series that are available back to December 2008, when interconnected VoIP retailers were first required to report subscription information on Form 477.

Earlier data, back to December 1999, are available in the Local Telephone Competition reports at <https://www.fcc.gov/general/local-telephone-competition-reports>. However, researchers using the complete data series for trend analysis should be aware of the following discontinuities in the data.

- Between December 1999 and December 2004, Form 477 collected state-by-state data only from local exchange carriers with at least 10,000 end-user switched access lines in service in the state, and from facilities-based mobile voice carriers with at least 10,000 mobile voice subscriptions in service in the state.
- Prior to December 2008, interconnected VoIP service retailers were not required to submit Form 477, but an unknown amount of interconnected VoIP service was included along with the switched access lines reported by some Form 477 filers.
- As discussed earlier in this report, the category standalone interconnected VoIP that was reported from December 2008 to December 2013 is different (that is, includes more subscriptions) than the category over-the-top interconnected VoIP that is reported starting with the June 2014 data.<sup>8</sup>

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<sup>8</sup> See footnote 3, above.

**Table 1. Voice Subscriptions (in Thousands) - Total for US**

Reference	Data element	Dec 2023	June 2024	Dec 2024
1	Mobile telephony	386,092	388,286	390,990
2	Directly-billed or prepaid	338,726	343,360	347,272
3	Not directly-billed or prepaid	47,366	44,926	43,718
4	Wireline End-User Switched Access Lines and Interconnected VoIP Subscriptions	85,119	82,874	79,969
5	Incumbent LECs	22,593	20,571	19,081
6	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	62,525	62,303	60,887
7	Consumer-grade service	32,623	30,110	27,838
8	Incumbent LECs	13,033	11,991	11,214
9	Other (Non-ILECs)	19,590	18,119	16,624
10	Business & Government-grade service	52,496	52,764	52,131
11	Incumbent LECs	9,561	8,580	7,867
12	Other (Non-ILECs)	42,936	44,183	44,263
13	Local exchange telephone service (Switched Access Lines)	20,680	18,234	16,397
14	Incumbent LECs	16,507	14,651	13,313
15	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	4,174	3,584	3,084
16	Consumer-grade service	8,547	7,703	7,011
17	Incumbent LECs	8,081	7,258	6,591
18	Other (Non-ILECs)	466	445	420
19	Business & Government-grade service	12,134	10,531	9,387
20	Incumbent LECs	8,426	7,393	6,722
21	Other (Non-ILECs)	3,708	3,138	2,665
22	Interconnected VoIP Subscriptions - Note: Includes both Over-the-top (OTT) and All Other sub-categories.	64,438	64,640	63,571
23	Incumbent LECs	6,087	5,921	5,769
24	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	58,352	58,719	57,803
25	Consumer-grade service	24,076	22,407	20,827
26	Incumbent LECs	4,952	4,733	4,623
27	Other (Non-ILECs)	19,124	17,674	16,204
28	Business & Government-grade service	40,362	42,233	42,744
29	Incumbent LECs	1,135	1,187	1,145
30	Other (Non-ILECs)	39,227	41,045	41,599
31	Over-the-top interconnected VoIP	22,950	25,379	26,191
32	Incumbent LECs	18	20	20
33	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	22,932	25,359	26,172
34	Consumer-grade service	1,450	1,387	1,377
35	Incumbent LECs	4	6	6
36	Other (Non-ILECs)	1,446	1,381	1,371
37	Business & Government-grade service	21,500	23,992	24,814
38	Incumbent LECs	14	14	14
39	Other (Non-ILECs)	21,485	23,978	24,800
40	All Other interconnected VoIP	41,488	39,260	37,380
41	Incumbent LECs	6,068	5,901	5,749
42	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	35,420	33,360	31,631
43	Consumer-grade service	22,626	21,020	19,450
44	Incumbent LECs	4,948	4,727	4,617
45	Other (Non-ILECs)	17,678	16,293	14,833
46	Business & Government-grade service	18,862	18,240	17,930
47	Incumbent LECs	1,120	1,174	1,131
48	Other (Non-ILECs)	17,742	17,067	16,799
49	Local exchange telephone service by last-mile delivery medium	20,680	18,234	16,397
50	Fiber-to-the-premises	3,320	3,575	3,659
51	Incumbent LECs	2,444	2,606	2,642
52	Other (Non-ILECs)	876	970	1,017
53	Coaxial cable	671	404	232
54	Incumbent LECs	42	38	41
55	Other (Non-ILECs)	629	367	191

**Table 1. Voice Subscriptions (in Thousands) - Total for US**

Reference	Data element	Dec 2023	June 2024	Dec 2024
56	Terrestrial fixed wireless	16	45	10
57	Incumbent LECs	10	8	4
58	Other (Non-ILEC)s	6	36	6
59	Copper local loop	16,674	14,210	12,496
60	Incumbent LECs	14,010	11,999	10,625
61	Other (Non-ILEC)s	2,663	2,211	1,871
62	All Other interconnected VoIP by last-mile delivery medium	41,488	39,260	37,380
63	Fiber-to-the-premises	8,663	8,381	8,257
64	Incumbent LECs	3,824	3,654	3,662
65	Other (Non-ILEC)s	4,840	4,727	4,595
66	Coaxial cable	22,314	20,806	19,179
67	Incumbent LECs	11	8	7
68	Other (Non-ILEC)s	22,304	20,798	19,172
69	Terrestrial fixed wireless or satellite	188	173	160
70	Incumbent LECs	0	0	0
71	Other (Non-ILEC)s	188	172	160
72	Copper local loop	10,322	9,901	9,784
73	Incumbent LECs	2,234	2,238	2,079
74	Other (Non-ILEC)s	8,088	7,663	7,705
75	Non-Incumbent LEC local exchange telephone service by means of provisioning	4,174	3,584	3,084
76	Provided over owned last-mile facilities	1,975	1,690	1,454
77	Provided over UNE-L obtained from unaffiliated entity	291	264	210
78	Provided over other services obtained from unaffiliated entity	1,908	1,629	1,421
79	Incumbent LEC local exchange telephone service provided to unaffiliated carriers for resale	2,022	1,802	826
80	Wholesale lines	1,692	1,529	740
81	UNE-L	330	273	87
82	Local exchange telephone service and long-distance service	20,680	18,234	16,397
83	Consumer-grade service	8,547	7,703	7,011
84	Incumbent LEC is preferred long-distance carrier for its local exchange service customer	5,700	4,827	4,457
85	Incumbent LEC is not preferred long-distance carrier for its local exchange service customer	2,381	2,430	2,134
86	Non-ILEC is preferred long-distance carrier for its local exchange service customer	386	350	354
87	Non-ILEC is not preferred long-distance carrier for its local exchange service customer	80	95	66
88	Business & Government-grade service	12,134	10,531	9,387
89	Incumbent LEC is preferred long-distance carrier for its local exchange service customer	4,839	4,014	2,736
90	Incumbent LEC is not preferred long-distance carrier for its local exchange service customer	3,587	3,379	3,986
91	Non-ILEC is preferred long-distance carrier for its local exchange service customer	3,024	2,310	1,987
92	Non-ILEC is not preferred long-distance carrier for its local exchange service customer	684	829	677
93	End user buys local exchange telephone service and Internet access service from same entity	7,322	6,689	6,143
94	End user buys both services from incumbent LEC or affiliates	6,003	5,559	5,170
95	End user buys both services from Non-ILEC or affiliates	1,318	1,130	973
96	End user buys interconnected VoIP and Internet access service from same entity	36,531	34,655	32,834
97	End user buys both services from incumbent LEC or affiliates	5,938	5,771	5,609
98	End user buys both services from Non-ILEC or affiliates	30,592	28,884	27,225

**Table 2. Number of Providers Reporting Voice Subscriptions - Total for US**

Reference	Data element	Dec 2023	June 2024	Dec 2024
1	Mobile telephony	53	53	53
2	Directly-billed or prepaid	51	50	50
3	Not directly-billed or prepaid	8	8	11
4	Wireline End-User Switched Access Lines and Interconnected VoIP Subscriptions	2,313	2,331	2,274
5	Incumbent LECs	698	694	684
6	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	1,958	1,985	1,940
7	Consumer-grade service	1,258	1,255	1,236
8	Incumbent LECs	697	693	683
9	Other (Non-ILECs)	896	899	894
10	Business & Government-grade service	2,258	2,275	2,212
11	Incumbent LECs	694	690	680
12	Other (Non-ILECs)	1,901	1,929	1,879
13	Local exchange telephone service (Switched Access Lines)	865	857	832
14	Incumbent LECs	689	682	672
15	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	433	431	418
16	Consumer-grade service	784	778	758
17	Incumbent LECs	688	682	672
18	Other (Non-ILECs)	346	344	334
19	Business & Government-grade service	856	848	821
20	Incumbent LECs	686	679	669
21	Other (Non-ILECs)	421	419	406
22	Interconnected VoIP Subscriptions - Note: Includes both Over-the-top (OTT) and All Other sub-categories.	1,876	1,900	1,862
23	Incumbent LECs	211	215	219
24	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	1,784	1,814	1,780
25	Consumer-grade service	746	749	753
26	Incumbent LECs	132	134	141
27	Other (Non-ILECs)	673	680	685
28	Business & Government-grade service	1,816	1,843	1,799
29	Incumbent LECs	199	204	210
30	Other (Non-ILECs)	1,732	1,763	1,722
31	Over-the-top interconnected VoIP	1,346	1,369	1,316
32	Incumbent LECs	40	38	37
33	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	1,325	1,352	1,299
34	Consumer-grade service	229	234	209
35	Incumbent LECs	14	18	15
36	Other (Non-ILECs)	218	223	201
37	Business & Government-grade service	1,315	1,334	1,287
38	Incumbent LECs	37	35	34
39	Other (Non-ILECs)	1,296	1,319	1,272
40	All Other interconnected VoIP	776	772	775
41	Incumbent LECs	197	197	205
42	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	689	688	694
43	Consumer-grade service	589	588	607
44	Incumbent LECs	122	121	131
45	Other (Non-ILECs)	519	521	539
46	Business & Government-grade service	739	739	735
47	Incumbent LECs	187	188	198
48	Other (Non-ILECs)	658	658	656
49	Local exchange telephone service by last-mile delivery medium	865	857	832
50	Fiber-to-the-premises	733	722	720
51	Incumbent LECs	636	631	626
52	Other (Non-ILECs)	337	329	335
53	Coaxial cable	75	75	66
54	Incumbent LECs	22	22	25
55	Other (Non-ILECs)	63	65	52

**Table 2. Number of Providers Reporting Voice Subscriptions - Total for US**

Reference	Data element	Dec 2023	June 2024	Dec 2024
56	Terrestrial fixed wireless	71	68	69
57	Incumbent LECs	44	42	46
58	Other (Non-ILECs)	39	38	34
59	Copper local loop	552	535	498
60	Incumbent LECs	419	405	387
61	Other (Non-ILECs)	235	220	206
62	All Other interconnected VoIP by last-mile delivery medium	776	772	775
63	Fiber-to-the-premises	647	643	647
64	Incumbent LECs	187	186	194
65	Other (Non-ILECs)	563	563	569
66	Coaxial cable	163	155	147
67	Incumbent LECs	11	9	9
68	Other (Non-ILECs)	155	150	143
69	Terrestrial fixed wireless or satellite	239	230	226
70	Incumbent LECs	13	11	13
71	Other (Non-ILECs)	231	221	215
72	Copper local loop	158	154	141
73	Incumbent LECs	55	58	56
74	Other (Non-ILECs)	124	114	106
75	Non-Incumbent LEC local exchange telephone service by means of provisioning	433	431	418
76	Provided over owned last-mile facilities	343	346	343
77	Provided over UNE-L obtained from unaffiliated entity	63	64	54
78	Provided over other services obtained from unaffiliated entity	132	121	110
79	Incumbent LEC local exchange telephone service provided to unaffiliated carriers for resale	36	35	30
80	Wholesale lines	32	33	26
81	UNE-L	13	12	11
82	Local exchange telephone service and long-distance service	865	857	832
83	Consumer-grade service	784	778	758
84	Incumbent LEC is preferred long-distance carrier for its local exchange service customer	644	637	627
85	Incumbent LEC is not preferred long-distance carrier for its local exchange service customer	624	616	607
86	Non-ILEC is preferred long-distance carrier for its local exchange service customer	324	322	307
87	Non-ILEC is not preferred long-distance carrier for its local exchange service customer	243	242	243
88	Business & Government-grade service	856	848	821
89	Incumbent LEC is preferred long-distance carrier for its local exchange service customer	641	633	624
90	Incumbent LEC is not preferred long-distance carrier for its local exchange service customer	603	598	593
91	Non-ILEC is preferred long-distance carrier for its local exchange service customer	382	378	363
92	Non-ILEC is not preferred long-distance carrier for its local exchange service customer	286	288	286
93	End user buys local exchange telephone service and Internet access service from same entity	793	786	779
94	End user buys both services from incumbent LEC or affiliates	677	670	665
95	End user buys both services from Non-ILEC or affiliates	362	358	362
96	End user buys interconnected VoIP and Internet access service from same entity	737	732	740
97	End user buys both services from incumbent LEC or affiliates	185	187	194
98	End user buys both services from Non-ILEC or affiliates	654	648	661

**Table 3: Residential Wireline Voice Telephone Service Connections and Households by State as of December 31, 2024**  
**(Connections and households, in thousands)**

State	Households	Switched Access		Interconnected VoIP		Total	
		Connections	Ratio	Connections	Ratio	Connections	Ratio
Alabama	1,969	96	0.05	239	0.12	335	0.17
Alaska	268	*	*	*	*	49	0.18
American Samoa	10	6	0.62	-	*	6	0.62
Arizona	2,797	114	0.04	280	0.10	394	0.14
Arkansas	1,189	73	0.06	79	0.07	152	0.13
California	13,435	515	0.04	2,397	0.18	2,911	0.22
Colorado	2,326	153	0.07	305	0.13	458	0.20
Connecticut	1,420	62	0.04	412	0.29	474	0.33
Delaware	396	14	0.04	130	0.33	143	0.36
District of Columbia	322	10	0.03	52	0.16	62	0.19
Florida	8,551	199	0.02	1,337	0.16	1,535	0.18
Georgia	4,008	242	0.06	488	0.12	730	0.18
Guam	42	*	*	*	*	13	0.31
Hawaii	489	55	0.11	90	0.18	146	0.30
Idaho	694	59	0.09	29	0.04	88	0.13
Illinois	5,002	185	0.04	647	0.13	832	0.17
Indiana	2,682	133	0.05	282	0.11	414	0.15
Iowa	1,304	161	0.12	93	0.07	254	0.19
Kansas	1,161	61	0.05	106	0.09	167	0.14
Kentucky	1,792	187	0.10	197	0.11	384	0.21
Louisiana	1,783	64	0.04	204	0.11	269	0.15
Maine	589	66	0.11	115	0.20	181	0.31
Maryland	2,340	104	0.04	617	0.26	721	0.31
Massachusetts	2,762	108	0.04	859	0.31	967	0.35
Michigan	4,040	150	0.04	620	0.15	770	0.19
Minnesota	2,283	248	0.11	241	0.11	490	0.21
Mississippi	1,132	41	0.04	95	0.08	136	0.12
Missouri	2,485	132	0.05	287	0.12	419	0.17
Montana	453	56	0.12	59	0.13	114	0.25
Nebraska	787	84	0.11	66	0.08	151	0.19
Nevada	1,183	44	0.04	148	0.13	192	0.16
New Hampshire	551	46	0.08	146	0.26	192	0.35
New Jersey	3,478	112	0.03	1,152	0.33	1,263	0.36
New Mexico	825	88	0.11	81	0.10	169	0.20
New York	7,669	316	0.04	2,291	0.30	2,607	0.34
North Carolina	4,187	255	0.06	665	0.16	920	0.22
North Dakota	325	42	0.13	23	0.07	65	0.20
Northern Mariana Islands	16	6	0.37	*	*	*	*
Ohio	4,830	297	0.06	722	0.15	1,019	0.21
Oklahoma	1,543	70	0.05	112	0.07	183	0.12
Oregon	1,702	114	0.07	238	0.14	352	0.21
Pennsylvania	5,235	382	0.07	1,226	0.23	1,608	0.31
Puerto Rico	1,239	*	*	*	*	*	*
Rhode Island	437	17	0.04	101	0.23	118	0.27
South Carolina	2,070	151	0.07	263	0.13	413	0.20
South Dakota	359	51	0.14	25	0.07	76	0.21
Tennessee	2,769	170	0.06	296	0.11	466	0.17
Texas	10,747	321	0.03	1,036	0.10	1,357	0.13
Utah	1,095	52	0.05	99	0.09	151	0.14
Vermont	269	56	0.21	53	0.20	109	0.40
Virgin Islands	30	7	0.24	0	0.00	7	0.24
Virginia	3,326	190	0.06	655	0.20	846	0.25
Washington	3,021	189	0.06	440	0.15	629	0.21
West Virginia	721	99	0.14	132	0.18	231	0.32
Wisconsin	2,446	193	0.08	360	0.15	553	0.23
Wyoming	238	25	0.10	24	0.10	48	0.20
<b>United States</b>	<b>128,820</b>	<b>7,011</b>	<b>0.05</b>	<b>20,827</b>	<b>0.16</b>	<b>27,838</b>	<b>0.22</b>

- = Rounds to Zero; \* = Data withheld to maintain firm confidentiality.

Notes: Numbers may not sum to totals due to rounding. Total fixed voice connections equal the sum of switched access lines and interconnected VoIP subscriptions.

Source: FCC Form 477; 2019-2023 ACS 5-year estimates; and Census 2010.

**Table 4: Mobile Voice Telephone Service Subscriptions and Population by State  
as of December 31, 2024**  
(Connections and population, in thousands)

State	Population	Directly Billed		Not Directly Billed		Total	
		Subscriptions	Ratio	Subscriptions	Ratio	Subscriptions	Ratio
Alabama	5,054	5,039	1.00	527	0.10	5,565	1.10
Alaska	734	754	1.03	30	0.04	783	1.07
American Samoa	56	*	*	*	*	*	*
Arizona	7,268	7,643	1.05	581	0.08	8,224	1.13
Arkansas	3,033	3,028	1.00	225	0.07	3,253	1.07
California	39,243	43,178	1.10	5,968	0.15	49,146	1.25
Colorado	5,811	5,847	1.01	812	0.14	6,659	1.15
Connecticut	3,598	3,872	1.08	446	0.12	4,317	1.20
Delaware	1,006	1,057	1.05	127	0.13	1,183	1.18
District of Columbia	672	1,538	2.29	142	0.21	1,680	2.50
Florida	21,929	23,372	1.07	2,861	0.13	26,233	1.20
Georgia	10,823	11,489	1.06	1,286	0.12	12,775	1.18
Guam	159	104	0.65	81	0.51	185	1.16
Hawaii	1,446	1,508	1.04	228	0.16	1,737	1.20
Idaho	1,893	1,902	1.00	131	0.07	2,034	1.07
Illinois	12,693	13,454	1.06	1,699	0.13	15,154	1.19
Indiana	6,812	6,425	0.94	898	0.13	7,324	1.08
Iowa	3,196	3,264	1.02	176	0.06	3,441	1.08
Kansas	2,938	2,908	0.99	269	0.09	3,177	1.08
Kentucky	4,511	4,134	0.92	657	0.15	4,792	1.06
Louisiana	4,621	4,620	1.00	564	0.12	5,185	1.12
Maine	1,377	1,258	0.91	191	0.14	1,449	1.05
Maryland	6,171	6,523	1.06	760	0.12	7,283	1.18
Massachusetts	6,992	7,363	1.05	983	0.14	8,346	1.19
Michigan	10,052	9,613	0.96	1,718	0.17	11,331	1.13
Minnesota	5,714	5,805	1.02	635	0.11	6,440	1.13
Mississippi	2,951	2,757	0.93	222	0.08	2,980	1.01
Missouri	6,168	5,959	0.97	723	0.12	6,682	1.08
Montana	1,105	1,092	0.99	125	0.11	1,217	1.10
Nebraska	1,966	2,054	1.04	184	0.09	2,238	1.14
Nevada	3,141	3,259	1.04	343	0.11	3,602	1.15
New Hampshire	1,388	1,337	0.96	210	0.15	1,548	1.12
New Jersey	9,267	10,400	1.12	1,122	0.12	11,522	1.24
New Mexico	2,115	2,172	1.03	191	0.09	2,363	1.12
New York	19,872	21,820	1.10	3,634	0.18	25,455	1.28
North Carolina	10,584	10,163	0.96	1,613	0.15	11,776	1.11
North Dakota	779	874	1.12	37	0.05	910	1.17
Northern Mariana Islands	54	*	*	*	*	*	*
Ohio	11,780	11,535	0.98	1,958	0.17	13,494	1.15
Oklahoma	3,995	3,822	0.96	371	0.09	4,193	1.05
Oregon	4,239	4,143	0.98	584	0.14	4,727	1.12
Pennsylvania	12,987	13,203	1.02	1,785	0.14	14,988	1.15
Puerto Rico	3,255	2,919	0.90	416	0.13	3,336	1.02
Rhode Island	1,095	1,111	1.01	102	0.09	1,213	1.11
South Carolina	5,213	4,993	0.96	641	0.12	5,634	1.08
South Dakota	899	934	1.04	41	0.05	975	1.08
Tennessee	6,986	7,156	1.02	828	0.12	7,984	1.14
Texas	29,640	31,599	1.07	3,043	0.10	34,643	1.17
Utah	3,331	3,227	0.97	381	0.11	3,607	1.08
Vermont	645	545	0.84	95	0.15	640	0.99
Virgin Islands	106	*	*	*	*	*	*
Virginia	8,657	9,065	1.05	901	0.10	9,966	1.15
Washington	7,741	7,767	1.00	1,024	0.13	8,791	1.14
West Virginia	1,784	1,510	0.85	203	0.11	1,713	0.96
Wisconsin	5,892	5,375	0.91	861	0.15	6,235	1.06
Wyoming	580	617	1.06	62	0.11	679	1.17
<b>United States</b>	<b>336,018</b>	<b>347,272</b>	<b>1.03</b>	<b>43,718</b>	<b>0.13</b>	<b>390,990</b>	<b>1.16</b>

- = Rounds to Zero; \* = Data withheld to maintain firm confidentiality.

Notes: Numbers may not sum to totals due to rounding. Directly billed subscriptions are those where the customer is directly billed by the facilities-based provider. Total mobile voice subscriptions equal the sum of subscriptions that are directly billed and those that are not.

Source: FCC Form 477; 2019-2023ACS 5-year estimates; and Census 2010.

## Technical Notes

Detailed information about the current Form 477 reporting requirements is available at <https://www.fcc.gov/general/form-477-resources-filers>.

### Counting lines and subscribers

- Form 477 counts both switched access lines and interconnected VoIP subscriptions as the maximum number of calls that may be active, simultaneously, from the end user's location under the purchased service plan. All VoIP subscriptions discussed in this report are interconnected VoIP subscriptions.
- Form 477 data may not count all VoIP phone connections to Internet Protocol Private Branch Exchange (IP PBX) equipment that is owned by business end users because of the variety of ways the IP PBX may connect to the public switched telephone network.

### Holding company-subsidiary relationships

- When counting service providers that report voice telephone service in a particular geography, we count a holding company or common-control entity no more than once in any specified sub-category of total providers.
- Nationwide counts of providers are unique counts for any specified sub-category of total providers (for example, all non-ILECs or all interconnected VoIP providers); an entity operating in multiple states is counted only once.

### ILEC-CLEC affiliations

- If a CLEC is affiliated with an ILEC and reports some end-user switched access lines or interconnected VoIP subscriptions in the ILEC's service area in the state, then the switched access lines or interconnected VoIP subscriptions reported by the CLEC are allocated between the ILEC and non-ILEC categories based on staff estimates.

### Mobile voice subscriptions

- Commercial mobile radio service carriers that own or operate wireless networks report both their retail voice service subscriptions and the retail subscriptions of the mobile voice service resellers that use their network. Mobile voice service resellers do not file Form 477.
- Providers may assign subscriptions to a particular state based on the area code of the device's telephone number, or by using some other method that best reflects the subscriber's location, such as a billing address of the device's place of primary use address.

### UNE-Platform lines replaced by commercial agreements

- UNE-Platform (UNE-P) was the combination of ILEC loop UNE, switching UNE, and transport UNE. The Commission directed CLECs to migrate their retail customers served by UNE-P to an alternative arrangement within 12 months of the effective date of the *Triennial Review Remand Order*, that is, by March 11, 2006. *See* C.F.R. § 51.319(d)(2)(ii). Such lines are reported on Form 477 as ILEC wholesale lines provided to unaffiliated providers for resale.

## Glossary

Term	Definition
All Other interconnected VoIP	Interconnected VoIP service other than OTT interconnected VoIP. (See the definition of OTT VoIP, below.)
Broadband connection	A wired line or wireless channel that terminates at an end-user location and enables the end user to receive information from and/or send information to the Internet at information transfer rates exceeding 200 kilobits per second in at least one direction.
Circuit switching	A method of completing electronic communications in which a transmission path is established for dedicated use by a communication; the basis of the public switched telephone network.
Coaxial cable	The technology widely used by cable system operators to terminate their services at the end user's premises.
Copper local loop	The technology widely used by telephone companies to terminate their service at the end user's premises.
CLEC	Competitive Local Exchange Carrier: A local exchange carrier (LEC) that operates within the traditional service area of an unaffiliated incumbent LEC.
End users	Residential, business, institutional, or government entities that use services for their own purposes and who do not resell such services to other entities.
Fixed wireless service	A radio communication service between specified fixed points.
FTTP or FTTH	Fiber to the Premises (Home): A network access architecture in which optical fiber is deployed all the way to the customer's premises (home).
Internet access service	Service that provides end users access to the Internet.
ILEC	Incumbent Local Exchange Carrier: A company or cooperative that was providing telephone service in a localized area, typically on a monopoly basis, prior to enactment of the Telecommunications Act of 1996.
Internet protocol or IP	A language and set of formal rules that govern how packets transit the Internet.
Interconnected VoIP	A service that enables real-time, two-way voice communications; requires a broadband connection from the user's location; requires Internet-protocol compatible customer premises equipment; and permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network.
LEC	Local Exchange Carrier: A company that provides telephone service within a localized area and access services that connect its customers to long-distance (Interexchange Carrier) networks.
Local loop	The physical connection between the customer's premises and the telephone company's local switching office, typically provided using copper, fiber, or a combination of copper and fiber facilities.
Mobile wireless service	A radio communication service between mobile and fixed stations, or between mobile stations.

Non-ILEC	Any provider of communications services who does not have ILEC regulatory status. A voice-service affiliate of an ILEC that is operating outside the ILEC's traditional service area ("study area") is a Non-ILEC.
OTT interconnected VoIP	Over-the-top interconnected VoIP: Service delivered to the end-user customer's premises over a high-capacity connection that the customer obtains (that is, buys), or has the use of, from an entity not affiliated with the interconnected VoIP service provider. (Colloquially, "bring-your-own-broadband.")
PBX	Private Branch Exchange: A communications switch that is owned or leased by the service provider's end-user customer and generally located on the customer's premises.
Packet switching	A method of completing electronic communications in which the information is disassembled into discrete packets that are transmitted independently and later reassembled; IP is an example.
Retail wireline voice telephone service	Switched access lines and interconnected VoIP subscriptions for which an end user is the customer.
Switched access line	A service connection between an end user and the local telephone company's switch; the basis of plain old telephone service (POTS).
UNE	Unbundled Network Element: A physical or functional element of an ILEC network that must be provided to a CLEC at a cost-based price, as provided for in the Telecommunications Act of 1996.
UNE-L	UNE-Loop: An ILEC unbundled local loop provided to a CLEC at a cost-based price.
Wholesale switched access lines	Local telephone service provided to an unaffiliated telephone company, which resells the service to end users; typically provided by an ILEC to a CLEC.