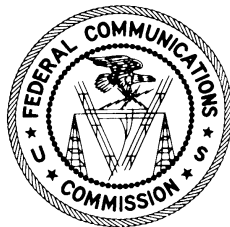


Voice Telephone Services: Status as of June 30, 2017

Industry Analysis and Technology Division
Wireline Competition Bureau
November 2018



This report is available for reference in the FCC's Reference Information Center, Courtyard Level, 445 12th Street, SW, Washington, DC. Copies may be purchased by contacting Best Copy and Printing, Inc., 445 12th Street, SW, Room CY-B402, Washington, DC 20554, telephone (800) 378-3160, or via their website at www.bcpiweb.com. The report can also be downloaded from the Voice Telephone Services Reports webpage at <https://www.fcc.gov/general/iatd-data-statistical-reports>.

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SUPPLEMENTAL MATERIALS AVAILABLE ON FCC WEBSITE

- Table 1 and Table 2 in Excel format (national-level data back to June 2016)
- State-level Subscriptions table in Excel format (data back to June 2016)
- State-level Number of Providers table in Excel format (data back to June 2016)
- County-level Subscriptions information in Excel format (data back to June 2014)
- CSV-format file of consistent data series published for 2008-2017
- Crosswalk to the report *Local Telephone Competition: Status as of December 31, 2013* in PDF format

Voice Telephone Services: Status as of June 30, 2017

Introduction

The Commission has used FCC Form 477 to collect subscribership information from providers of voice telephone services – the incumbent local exchange carriers (ILECs), competitive local exchange carriers (CLECs), and mobile voice providers – since December 1999. The Commission has required interconnected Voice over Internet Protocol (“interconnected VoIP”) service providers to report subscribership information since December 2008.¹ 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.²

This report summarizes the information collected about telephone services as of June 30, 2017.³

Comparison to Local Telephone Competition Report

This report previously was 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.

¹ 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 (CPE); 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 the VoIP services that Skype offers in the United States, and subscribers to those services are not reported on Form 477.

² 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 that were adopted in 2013 (to be effective for reporting June 2014 and later data), and to avoid confusion, this report no longer uses the terms “standalone VoIP” and, by contrast, “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.

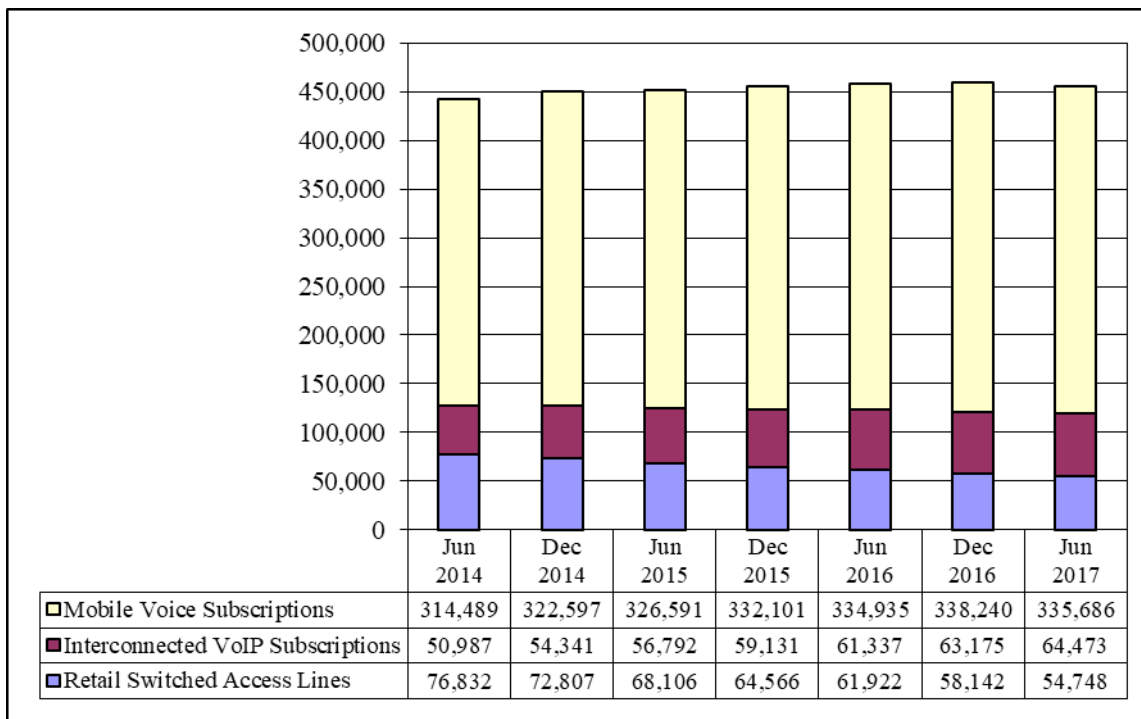
³ The presentation of mobile wireless telephone subscriber counts in this report does not constitute, or imply, Commission analysis of the extent to which wireline and mobile wireless telephone services are demand substitutes or complements in general or in any particular situation.

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.

- In June 2017, the data shows that there were 55 million end-user switched access lines in service, 64 million interconnected VoIP subscriptions, and 336 million mobile subscriptions in the United States, or 455 million retail voice telephone service connections in total. See Figure 1.
- Over the three-year period presented in Figure 1, interconnected VoIP subscriptions increased at a compound annual growth rate of 8%, mobile voice subscriptions increased at a compound annual growth rate of 2%, and retail switched access lines declined at a compound annual growth rate of 11% per year.⁴

Figure 1
Retail Voice Telephone Service Connections, 2014-2017
(in Thousands)



Some previously published data have been revised.

- Of the 119 million wireline retail voice telephone service connections (including both switched access lines and interconnected VoIP subscriptions) in June 2017, 63 million (or 53%) were residential connections and 57 million (or 47%) were business connections.⁵ See Figure 2.

⁴ The compound annual growth rate (CAGR) 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.

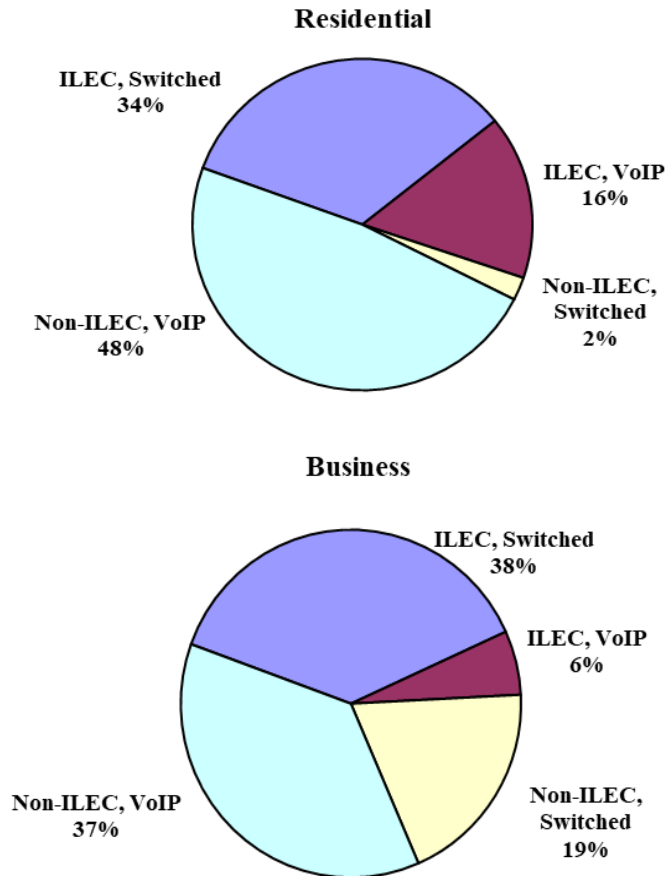
⁵ FCC Form 477 does not distinguish between residential and business subscribers to mobile *voice* service. The information that Form 477 collects about mobile *broadband* service is summarized elsewhere; see *Internet Access Services: Status as of June 30, 2017*, available at <https://www.fcc.gov/reports-research/reports/internet-access-services-reports/internet-access-services-reports>.

Figure 2
Wireline Retail Voice Telephone Service Connections by Technology, Regulatory Status, and Customer Type as of June 30, 2017 (in Thousands)

Total	Switched Access Lines	Interconnected VoIP	Total
ILEC	42,401	13,385	55,786
Non-ILEC	12,346	51,088	63,434
Total	54,748	64,473	119,221
Residential			
ILEC	21,088	10,006	31,094
Non-ILEC	1,407	30,119	31,526
Residential Total	22,495	40,125	62,621
Business			
ILEC	21,313	3,378	24,692
Non-ILEC	10,939	20,969	31,908
Business Total	32,252	24,347	56,599

Figures may not sum to totals due to rounding.

ILEC – Incumbent local exchange carrier. A voice service affiliate of an ILEC that is operating outside of the ILEC’s traditional service area (“study area) is a Non ILEC.



- Cross-classified by technology and the retailer’s regulatory status in Figure 2, the 63 million wireline residential connections in June 2017 were: 34% ILEC switched access lines, 48% non-ILEC interconnected VoIP subscriptions, 16% ILEC interconnected VoIP subscriptions, and 2% non-ILEC switched access lines. Similarly, the 57 million wireline business connections were: 38% ILEC switched access lines, 37% non-ILEC interconnected VoIP subscriptions, 6% ILEC interconnected VoIP subscriptions, and 19% non-ILEC switched access lines.

Retail Service Relationships

The revised Form 477 program collects two types of information about retail service relationships.

- Interconnected VoIP service retailers distinguish over-the-top (“OTT”) interconnected VoIP subscriptions—which, in the revised Form 477 program, means that the VoIP service end user has purchased (or has use of) a broadband connection from an entity that is not affiliated with the VoIP service retailer—by contrast to all other interconnected VoIP subscriptions. See Figure 3.
- Retailers of switched access lines and retailers of interconnected VoIP service distinguish between sales to end users who do not also purchase Internet access from them (including affiliates) and sales to end users who do purchase both these services. See Figure 4.

Figure 3
Interconnected VoIP Subscriberhip by Reported Service Features, Regulatory Status,
and Customer Type as of June 30, 2017 (in Thousands)

Total	Over-the-Top (OTT)	All Other VoIP	Total
ILEC	138	13,246	13,385
Non-ILEC	7,614	43,475	51,088
Total	7,753	56,721	64,473
Residential			
ILEC	45	9,961	10,006
Non-ILEC	2,193	27,925	30,119
Residential Total	2,238	37,886	40,125
Business			
ILEC	93	3,285	3,378
Non-ILEC	5,422	15,550	20,969
Business Total	5,515	18,836	24,347

Figures may not sum to totals due to rounding.

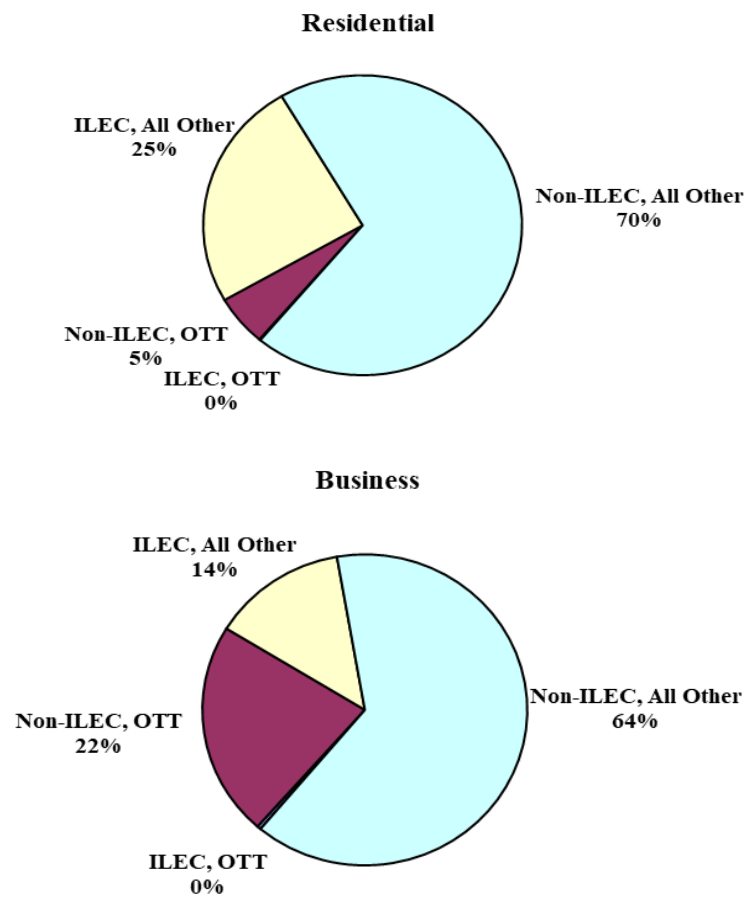
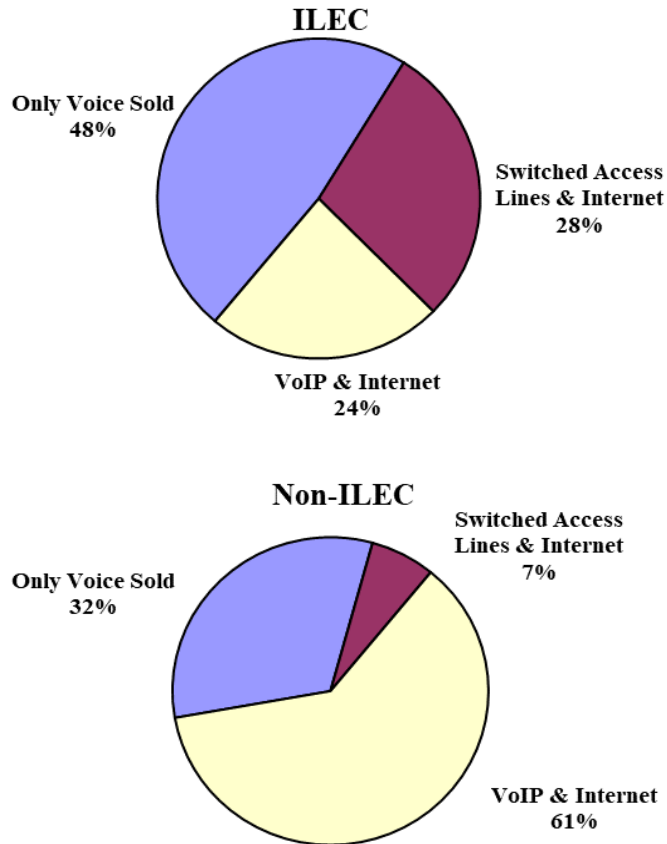


Figure 4
Retail Relationships of Wireline Voice Telephone Service with Internet Access Service
by Regulatory Status as of June 30, 2017 (in Thousands)

Total Sold to End Users	ILEC	Non-ILEC	Total
Switched Access Lines	42,401	12,346	54,748
Over-the-Top VoIP	138	7,614	7,753
All Other VoIP	13,246	43,475	56,721
Total	55,786	63,434	119,220
Internet Also Sold			
Switched Access Lines	15,962	4,215	20,177
Over-the-Top VoIP	0	0	0
All Other VoIP	13,205	38,871	52,076
Both Sold Total	29,167	43,086	72,253
Internet Not Also Sold			
Switched Access Lines	26,439	8,131	34,571
Over-the-Top VoIP	138	7,614	7,753
All Other VoIP	41	4,604	4,645
Only Voice Total	26,619	20,348	46,967

Figures may not sum totals due to rounding.



Detailed Voice Telephone Services Data

The remainder of this document consists of national information, technical notes, and a glossary of terms.

- Table 1 summarizes national-level voice telephone service subscription data for June and December 2016, and also for June 2017, for individual data elements collected by FCC Form 477.
- Table 2 shows the number of entities that reported the national-level subscription data for June and December 2016, and also for June 2017.

Table 1 and Table 2 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 June 2016)
- State-level Number of Providers table in Excel format (data back to June 2016)
- County-level Subscriptions 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 who consider using the complete data series for trend analysis should recall the discontinuities in the data that arise from Form 477 modifications over time.

- 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.⁶

⁶ See footnote 2, above.

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

Reference	Data element	June 2017	Dec 2016	June 2016
1	Mobile telephony	335,686	338,240	334,935
2	Directly-billed or prepaid	296,486	296,660	295,255
3	Not directly-billed or prepaid	39,200	41,580	39,680
4	Wireline End-User Switched Access Lines and Interconnected VoIP Subscriptions	119,220	121,316	123,259
5	Incumbent LECs	55,786	58,262	61,447
6	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	63,434	63,055	61,812
7	Consumer-grade service	62,621	64,419	66,206
8	Incumbent LECs	31,094	32,637	34,365
9	Other (Non-ILECs)	31,526	31,782	31,840
10	Business & Government-grade service	56,599	56,898	57,053
11	Incumbent LECs	24,692	25,625	27,082
12	Other (Non-ILECs)	31,908	31,273	29,972
13	Local exchange telephone service (Switched Access Lines)	54,748	58,142	61,922
14	Incumbent LECs	42,401	45,245	48,610
15	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	12,346	12,896	13,312
16	Consumer-grade service	22,495	24,144	25,941
17	Incumbent LECs	21,088	22,649	24,287
18	Other (Non-ILECs)	1,407	1,495	1,654
19	Business & Government-grade service	32,252	33,997	35,981
20	Incumbent LECs	21,313	22,596	24,323
21	Other (Non-ILECs)	10,939	11,401	11,658
22	Interconnected VoIP Subscriptions - Note: Includes both Over-the-top (OTT) and All Other sub-categories.	64,473	63,175	61,337
23	Incumbent LECs	13,385	13,016	12,837
24	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	51,088	50,158	48,500
25	Consumer-grade service	40,125	40,274	40,265
26	Incumbent LECs	10,006	9,988	10,078
27	Other (Non-ILECs)	30,119	30,286	30,186
28	Business & Government-grade service	24,347	22,900	21,072
29	Incumbent LECs	3,378	3,029	2,759
30	Other (Non-ILECs)	20,969	19,872	18,313
31	Over-the-top interconnected VoIP	7,753	7,395	6,626
32	Incumbent LECs	138	41	35
33	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	7,614	7,353	6,591
34	Consumer-grade service	2,238	2,647	2,767
35	Incumbent LECs	45	38	33
36	Other (Non-ILECs)	2,193	2,608	2,734
37	Business & Government-grade service	5,515	4,748	3,860
38	Incumbent LECs	93	3	2
39	Other (Non-ILECs)	5,422	4,745	3,857
40	All Other interconnected VoIP	56,721	55,778	54,711
41	Incumbent LECs	13,246	12,975	12,802
42	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	43,475	42,803	41,909
43	Consumer-grade service	37,886	37,628	37,498
44	Incumbent LECs	9,961	9,950	10,045
45	Other (Non-ILECs)	27,925	27,678	27,453
46	Business & Government-grade service	18,836	18,150	17,213
47	Incumbent LECs	3,285	3,026	2,757
48	Other (Non-ILECs)	15,550	15,125	14,456
49	Local exchange telephone service by last-mile delivery medium	54,748	58,142	61,922
50	Fiber-to-the-premises	6,058	6,126	6,153
51	Incumbent LECs	3,839	3,803	3,617
52	Other (Non-ILECs)	2,219	2,323	2,536
53	Coaxial cable	779	884	1,292
54	Incumbent LECs	58	60	56
55	Other (Non-ILECs)	721	824	1,237
56	Terrestrial fixed wireless	27	510	527

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

Reference	Data element	June 2017	Dec 2016	June 2016
57	Incumbent LECs	18	501	516
58	Other (Non-ILECs)	8	9	11
59	Copper local loop	47,885	50,622	53,950
60	Incumbent LECs	38,486	40,882	44,421
61	Other (Non-ILECs)	9,398	9,740	9,529
62	All Other interconnected VoIP by last-mile delivery medium	56,721	55,778	54,711
63	Fiber-to-the-premises	7,829	7,447	7,299
64	Incumbent LECs	5,580	5,414	5,330
65	Other (Non-ILECs)	2,249	2,033	1,969
66	Coaxial cable	35,059	34,626	34,193
67	Incumbent LECs	6	5	6
68	Other (Non-ILECs)	35,052	34,621	34,187
69	Terrestrial fixed wireless or satellite	81	94	88
70	Incumbent LECs	0	0	0
71	Other (Non-ILECs)	81	94	87
72	Copper local loop	13,753	13,610	13,131
73	Incumbent LECs	7,660	7,556	7,465
74	Other (Non-ILECs)	6,094	6,054	5,665
75	Non-Incumbent LEC local exchange telephone service by means of provisioning	12,346	12,896	13,312
76	Provided over owned last-mile facilities	4,227	4,515	4,841
77	Provided over UNE-L obtained from unaffiliated entity	1,772	2,308	2,609
78	Provided over other services obtained from unaffiliated entity	6,347	6,074	5,862
79	Incumbent LEC local exchange telephone service provided to unaffiliated carriers for resale	5,348	5,606	5,758
80	Wholesale lines	3,363	3,483	3,537
81	UNE-L	1,985	2,123	2,221
82	Local exchange telephone service and long-distance service	54,748	58,142	61,922
83	Consumer-grade service	22,495	24,144	25,941
84	Incumbent LEC is preferred long-distance carrier for its local exchange service customer	13,623	14,803	15,841
85	Incumbent LEC is not preferred long-distance carrier for its local exchange service customer	7,465	7,846	8,446
86	Non-ILEC is preferred long-distance carrier for its local exchange service customer	1,160	1,229	1,392
87	Non-ILEC is not preferred long-distance carrier for its local exchange service customer	247	266	261
88	Business & Government-grade service	32,252	33,997	35,981
89	Incumbent LEC is preferred long-distance carrier for its local exchange service customer	11,519	12,147	12,969
90	Incumbent LEC is not preferred long-distance carrier for its local exchange service customer	9,794	10,449	11,354
91	Non-ILEC is preferred long-distance carrier for its local exchange service customer	7,987	8,155	7,100
92	Non-ILEC is not preferred long-distance carrier for its local exchange service customer	2,952	3,246	4,558
93	End user buys local exchange telephone service and Internet access service from same entity	20,177	21,304	22,790
94	End user buys both services from incumbent LEC or affiliates	15,962	16,970	18,106
95	End user buys both services from Non-ILEC or affiliates	4,215	4,334	4,684
96	End user buys interconnected VoIP and Internet access service from same entity	52,076	50,976	50,660
97	End user buys both services from incumbent LEC or affiliates	13,205	12,938	12,770
98	End user buys both services from Non-ILEC or affiliates	38,871	38,038	37,890

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

Reference	Data element	June 2017	Dec 2016	June 2016
1	Mobile telephony	118	122	127
2	Directly-billed or prepaid	115	119	126
3	Not directly-billed or prepaid	18	23	23
4	Wireline End-User Switched Access Lines and Interconnected VoIP Subscriptions	1,722	1,697	1,678
5	Incumbent LECs	737	737	742
6	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	1,281	1,254	1,219
7	Consumer-grade service	1,240	1,244	1,242
8	Incumbent LECs	736	736	741
9	Other (Non-ILECs)	787	781	763
10	Business & Government-grade service	1,619	1,592	1,570
11	Incumbent LECs	732	732	738
12	Other (Non-ILECs)	1,179	1,147	1,111
13	Local exchange telephone service (Switched Access Lines)	1,014	1,019	1,029
14	Incumbent LECs	734	734	739
15	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	518	521	516
16	Consumer-grade service	911	912	923
17	Incumbent LECs	734	734	739
18	Other (Non-ILECs)	405	402	399
19	Business & Government-grade service	994	1,001	1,008
20	Incumbent LECs	730	730	736
21	Other (Non-ILECs)	498	501	494
22	Interconnected VoIP Subscriptions - Note: Includes both Over-the-top (OTT) and All Other sub-categories.	1,078	1,046	1,004
23	Incumbent LECs	108	102	98
24	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	1,037	1,005	967
25	Consumer-grade service	526	524	502
26	Incumbent LECs	52	50	48
27	Other (Non-ILECs)	495	492	474
28	Business & Government-grade service	982	947	908
29	Incumbent LECs	101	94	93
30	Other (Non-ILECs)	947	912	874
31	Over-the-top interconnected VoIP	628	590	562
32	Incumbent LECs	20	18	20
33	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	621	581	552
34	Consumer-grade service	167	162	150
35	Incumbent LECs	8	10	8
36	Other (Non-ILECs)	162	155	144
37	Business & Government-grade service	584	541	520
38	Incumbent LECs	18	13	17
39	Other (Non-ILECs)	579	537	512
40	All Other interconnected VoIP	650	652	626
41	Incumbent LECs	101	95	91
42	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	611	614	593
43	Consumer-grade service	412	416	396
44	Incumbent LECs	47	44	42
45	Other (Non-ILECs)	385	389	372
46	Business & Government-grade service	582	581	557
47	Incumbent LECs	95	88	86
48	Other (Non-ILECs)	548	548	527
49	Local exchange telephone service by last-mile delivery medium	1,014	1,019	1,029
50	Fiber-to-the-premises	720	710	679
51	Incumbent LECs	566	561	541
52	Other (Non-ILECs)	344	326	300
53	Coaxial cable	82	88	93
54	Incumbent LECs	21	19	20
55	Other (Non-ILECs)	71	77	81
56	Terrestrial fixed wireless	73	74	69

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

Reference	Data element	June 2017	Dec 2016	June 2016
57	Incumbent LECs	39	44	42
58	Other (Non-ILECs)	45	41	37
59	Copper local loop	837	849	861
60	Incumbent LECs	621	629	635
61	Other (Non-ILECs)	349	353	361
62	All Other interconnected VoIP by last-mile delivery medium	650	652	626
63	Fiber-to-the-premises	390	379	345
64	Incumbent LECs	88	77	69
65	Other (Non-ILECs)	355	348	319
66	Coaxial cable	209	213	212
67	Incumbent LECs	10	9	8
68	Other (Non-ILECs)	207	211	210
69	Terrestrial fixed wireless or satellite	210	201	199
70	Incumbent LECs	7	12	11
71	Other (Non-ILECs)	205	192	190
72	Copper local loop	223	218	231
73	Incumbent LECs	48	46	50
74	Other (Non-ILECs)	197	194	206
75	Non-Incumbent LEC local exchange telephone service by means of provisioning	518	521	516
76	Provided over owned last-mile facilities	378	369	363
77	Provided over UNE-L obtained from unaffiliated entity	119	123	128
78	Provided over other services obtained from unaffiliated entity	210	216	216
79	Incumbent LEC local exchange telephone service provided to unaffiliated carriers for resale	52	47	49
80	Wholesale lines	50	45	46
81	UNE-L	13	12	13
82	Local exchange telephone service and long-distance service	1,014	1,019	1,029
83	Consumer-grade service	911	912	923
84	Incumbent LEC is preferred long-distance carrier for its local exchange service customer	679	673	669
85	Incumbent LEC is not preferred long-distance carrier for its local exchange service customer	679	679	693
86	Non-ILEC is preferred long-distance carrier for its local exchange service customer	374	370	372
87	Non-ILEC is not preferred long-distance carrier for its local exchange service customer	276	279	274
88	Business & Government-grade service	994	1,001	1,008
89	Incumbent LEC is preferred long-distance carrier for its local exchange service customer	676	670	668
90	Incumbent LEC is not preferred long-distance carrier for its local exchange service customer	662	656	671
91	Non-ILEC is preferred long-distance carrier for its local exchange service customer	450	450	448
92	Non-ILEC is not preferred long-distance carrier for its local exchange service customer	327	329	318
93	End user buys local exchange telephone service and Internet access service from same entity	904	904	918
94	End user buys both services from incumbent LEC or affiliates	713	713	717
95	End user buys both services from Non-ILEC or affiliates	422	415	418
96	End user buys interconnected VoIP and Internet access service from same entity	589	591	574
97	End user buys both services from incumbent LEC or affiliates	93	89	84
98	End user buys both services from Non-ILEC or affiliates	551	552	540

Technical Notes

General

Detailed information about the current Form 477 reporting requirements is available at <https://www.fcc.gov/general/form-477-resources-filers#block-menu-block-4>.

See Glossary for definitions of terms used in this report.

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 (CMRS) 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.

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.)
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 (PSTN).
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 or iVoIP	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 provide 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.

Customer Response

Publication: *Voice Telephone Services: Status as of June 30, 2017*

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