

newly deployed fixed assets being offset by the decline in depreciation expense from fully depreciated fixed assets.

**Gains on Equipment Transactions.** We exchanged certain used network equipment and cash consideration for new network equipment resulting in gains of \$1.1 million for 2019 and \$1.0 million for 2018. The gains are based upon the excess of the estimated fair value of the new network equipment over the carrying amount of the returned used network equipment and the cash paid. The increase in gains from 2018 to 2019 was due to purchasing more equipment under the exchange program in 2019 than we purchased in 2018.

**Interest Expense.** Interest expense results from interest incurred on our \$445.0 million of senior secured notes, interest incurred on our \$189.2 million of senior unsecured notes, interest on our installment payment agreement, interest on our finance lease obligations and interest incurred on our €135.0 million of 2024 Notes that we issued on June 25, 2019. Our interest expense increased by 12.5% for 2019 from 2018 primarily due to the issuance of \$70.0 million of senior secured notes we issued in August 2018, the issuance of €135.0 million of senior unsecured notes we issued in June 2019 and an increase in our finance lease obligations. The 2024 Notes were issued at par for €135.0 million (\$153.7 million) on June 25, 2019. The 2024 Notes were issued in Euros and are reported in our reporting currency — US Dollars. As of December 31, 2019 the 2024 Notes were valued at \$151.4 million resulting in an unrealized gain on foreign exchange of \$2.3 million in 2019.

**Income Tax Expense.** Our income tax expense was \$15.1 million for 2019 and \$12.7 million for 2018. The increase in our income tax expense was primarily related to an increase in our income before income taxes.

**Buildings On-net.** As of December 31, 2019 and 2018 we had a total of 2,801 and 2,676 on-net buildings connected to our network, respectively.

*Year Ended December 31, 2018 Compared to the Year Ended December 31, 2017*

Our management reviews and analyzes several key financial measures in order to manage our business and assess the quality of and variability of our service revenue, operating results and cash flows. The following summary tables present a comparison of our results of operations with respect to certain key financial measures. The comparisons illustrated in the tables are discussed in greater detail below.

	Year Ended December 31,		Change Percent
	2018	2017	
	(in thousands)		
Service revenue	\$ 520,193	\$ 485,175	7.2 %
On-net revenues	374,555	346,445	8.1 %
Off-net revenues	145,004	137,892	5.2 %
Network operations expenses(1)	219,526	209,278	4.9 %
Selling, general, and administrative expenses(2)	133,858	127,915	4.6 %
Depreciation and amortization expenses	81,233	75,926	7.0 %
Gains on equipment transactions	982	3,862	(74.6)%
Interest expense	51,056	48,467	5.3 %
Income tax expense	12,715	25,242	(49.6)%

(1) Includes non-cash equity-based compensation expense of \$895 and \$604 for 2018 and 2017, respectively.

(2) Includes non-cash equity-based compensation expense of \$16,813 and \$12,686 for 2018 and 2017, respectively.

	Year Ended December 31,		Percent Change
	2018	2017	
Other Operating Data			
Average Revenue Per Unit (ARPU)			
ARPU—on-net	\$ 480	\$ 506	(5.1)%
ARPU—off-net	\$ 1,155	\$ 1,239	(6.8)%
Average price per megabit	\$ 0.82	\$ 1.11	(25.9)%
Customer Connections—end of period			
On-net	68,770	61,334	12.1 %
Off-net	10,974	9,953	10.3 %

*Service Revenue.* Our service revenue increased 7.2% from 2017 to 2018. Exchange rates positively impacted our increase in service revenue by approximately \$4.0 million. All foreign currency comparisons herein reflect results for 2018 translated at the average foreign currency exchange rates for 2017. We increased our total service revenue by increasing the number of sales representatives selling our services, by expanding our network, by adding additional buildings to our network, by increasing our penetration into the buildings connected to our network and by gaining market share by offering our services at lower prices than our competitors.

Revenue recognition standards include guidance relating to any tax assessed by a governmental authority that is directly imposed on a revenue-producing transaction between a seller and a customer and may include, but is not limited to, gross receipts taxes, Universal Service Fund fees and certain state regulatory fees. We record these taxes billed to our customers on a gross basis (as service revenue and network operations expense) in our consolidated statements of operations. The impact of these taxes including the Universal Service Fund resulted in an increase to our revenues from 2017 to 2018 of approximately \$1.6 million.

Our net-centric customers tend to purchase their service on a price per megabit basis. Our corporate customers tend to utilize a small portion of their allocated bandwidth on their connections and tend to purchase their service on a per connection basis. Revenues from our corporate and net-centric customers represented 64.9% and 35.1% of total service revenue, respectively, for 2018 and represented 62.3% and 37.7% of total service revenue, respectively, for 2017. Revenues from corporate customers increased 11.8% to \$337.8 million for 2018 from \$302.1 million for 2017 primarily due to an increase in our number of our corporate customers. Revenues from our net-centric customers decreased by 0.4% to \$182.3 million for 2018 from \$183.1 million for 2017 primarily due to an increase in our number of net-centric customers being offset by a decline in our average price per megabit. Our revenue from our net-centric customers has declined as a percentage of our total revenue and grew at a slower rate than our corporate customer revenue because net-centric customers purchase our services based upon a price per megabit basis and our average price per megabit declined by 25.9% from 2017 to 2018. Additionally, the net-centric market experiences a greater level of pricing pressure than the corporate market and net-centric customers who renew their service with us expect their renewed service to be at a lower price than their current price. We expect that our average price per megabit will continue to decline at similar rates which would result in our corporate revenues continuing to represent a greater portion of our total revenues and our net-centric revenues continuing to grow at a lower rate than our corporate revenues. Additionally, the impact of foreign exchange rates has a more significant impact on our net-centric revenues.

Our on-net revenues increased 8.1% from 2017 to 2018. We increased the number of our on-net customer connections by 12.1% at December 31, 2018 from December 31, 2017. On-net customer connections increased at a greater rate than on-net revenues primarily due to the 5.1% decline in our on-net ARPU, primarily from a decline in ARPU for our net-centric customers. ARPU is determined by dividing revenue for the period by the average customer connections for that period. Our average price per megabit for our installed base of customers is determined by dividing the aggregate monthly recurring fixed charges for those customers by the aggregate committed data rate for the same customers. The decline in on-net ARPU is partly attributed to volume and term based pricing discounts. Additionally, on-net customers who cancel their service from our installed base of customers, in general, have an ARPU that is greater than the ARPU for our new customers due to declining prices primarily for our on-net services sold to our net-centric customers. These trends resulted in the reduction to our on-net ARPU and a 25.9% decline in our average price per megabit for our installed base of customers.