## **T** AT&T CORPORATE AND CALIFORNIA ILEC INVESTMENT POLICIES

#### Principal observations and takeaways

- AT&T California's potential revenue from raising prices and curtailing investments in its legacy POTS services far exceed any financial penalties imposed for its failure to meet the GO 133-C/D service quality standards.
- To support its "harvesting" strategy and maintain revenues despite a massive drop-off in demand, AT&T California has raised its rates for legacy flat-rate residential service by 152.6% since the service was de-tariffed by the CPUC in 2009.
- AT&T senior management's interest in and attention to its legacy wireline ILEC operations has been largely supplanted by its wireless operations and the recent satellite TV and video content acquisitions.
- AT&T California financial statements show an incomplete assessment of the ILEC's financial condition due to the large volume of inter-affiliate transactions made at transfer prices that are not set on the basis of arm's length negotiations.
- Cumulatively, over the full 8-year period, AT&T California had total net after-tax income of \$3.4-billion, but paid out \$7.6-billion to its parent company, AT&T Inc, thereby eroding the California company's capital base by roughly \$4.2-billion and impairing its ability to maintain and upgrade its aging infrastructure.
- AT&T, Inc. has also been eroding its California ILEC's capital base by investing less in its infrastructure than its annual depreciation accruals and retirements.
- AT&T's "harvesting" philosophy explains why AT&T has failed to improve service quality for its POTS services at least to the point where the GO 133-C/D standards can be achieved, because the gains it can realize by raising prices and curtailing investment and maintenance far exceed any financial penalties it might suffer from persistently poor service quality.





#### AT&T CORPORATE AND CALIFORNIA ILEC INVESTMENT POLICIES

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#### Introduction

AT&T California d/b/a AT&T California is a wholly-owned subsidiary of AT&T Inc. AT&T Inc. was created by the 2005 merger of AT&T Corp. and SBC Communications, Inc., which itself had by then merged with three of the original seven Regional Bell Operating Companies ("RBOCs" – Pacific Telesis Group ("PTG"), Ameritech and BellSouth) that had been created when the local Bell System operating companies ("BOCs") were divested by AT&T Corp. on January 1, 1984.<sup>116</sup> AT&T California is an "Incumbent Local Exchange Carrier" as the term is defined at 47 U.S.C. §251(b)(1).<sup>117</sup> Following the break-up of the former Bell System in 1984,<sup>118</sup> AT&T California was owned by PTG, which provided local telephone service in California and Nevada through its AT&T California and Nevada Bell subsidiaries. Organizationally, Nevada Bell operates as part of AT&T California.

In 1992, PTG announced its decision to "spin-off" its cellular wireless subsidiary, PacTel, which divestiture was approved by the CPUC in 1993.<sup>119</sup> In 1996, several months following the U. S. Congress' enactment of the federal *Telecommunications Act of 1996* ("TA96"),<sup>120</sup> PTG and Southwestern Bell, another RBOC that, at that time, was providing service in Texas, Oklahoma, Kansas, Missouri and Arkansas, announced their intention to merge. That merger was approved

117. United States v. American Tel. & Tel. Co., 552 F. Supp. 131 (D.D.C. 1982), aff'd sub nom. Maryland v. United States, 460 U.S. 1001 (1983).

118. Adopted at Sec. 251(b)(1) of the *Telecommunications Act of 1996*: "... the term incumbent local exchange carrier' means, with respect to an area, the local exchange carrier that (A) on the date of enactment of the Telecommunications Act of 1996, provided telephone exchange service in such area; and (B)(i) on such date of enactment, was deemed to be a member of the exchange carrier association pursuant to section 69.601(b) of the Commission's regulations (47 C.F.R. 69.601(b)); or (ii) is a person or entity that, on or after such date of enactment, became a successor or assign of a member described in clause (i).

119. Re Pacific Telesis Group, A.93-02-028, D.93-11-011, 51 CPUC 2d 728.

120. P. L. 106-106.



<sup>116.</sup> The AT&T/SBC merger was approved by the California PUC on November 18, 2005, and by the FCC on November 17, 2005. *I/M/O the Joint Application of SBC Communications, Inc. ("SBC") and AT&T Corp. ("AT&T") for Authorization to Transfer Control of AT&T's Communications of California (U-5002), TCG Los Angeles, Inc. (U-5462), TCG San Diego (U-5389), and TCG San Francisco (U-5454) to SBC, Which Will Occur Indirectly as a AT&T's Merger With a Wholly-Owned Subsidiary of SBC, Tau Merger Sub Corporation, A.05-02-027, D.05-11-028, November 18, 2005; <i>I/M/O SBC Communications Inc. and AT&T Corp. Applications for Approval of Transfer of Control*, WC Docket No. 05-65, *Memorandum Opinion and Order*, FCC 05-183, Adopted: October 31, 2005, Released: November 17, 2005.

by the FCC in January 1997 and by the CPUC in April 1997.<sup>121</sup> Seven years later, SBC and AT&T Corp. announced plans to merge, and that transaction was completed in late 2005.<sup>122</sup>

Following the 1984 break-up of the former Bell System, BOCs were prohibited, by the Consent Decree entered into by AT&T Corp. and the United States Department of Justice, from offering long distance services beyond designated areas known as Local Access and Transport Areas ("LATAs"). InterLATA long distance services were to be provided by AT&T Corp. and by competing Interexchange Carriers ("IXCs") that were to be afforded "equal access" to BOC local exchange networks. TA96, among other things, modified certain provisions of the 1984 Consent Decree and provided a process by which BOCs, upon satisfying certain specified requirements relating to equal access to and interconnection with their local exchange networks, would be allowed to re-enter the interLATA long distance market.<sup>123</sup> By a decision issued by the CPUC in 2002, AT&T California was found to have met these requirements<sup>124</sup> and, through an affiliate, commenced offering long distance services to its (and other local carriers') exchange service customers.

Ironically, by the end of the decade, far-reaching technological and competitive changes had taken place in the local and long distance telecommunications markets the effect of which was to permanently diminish the scope of the long distance market that AT&T California and its sister BOCs had so long fought to reenter. Voice over Internet Protocol ("VoIP") technology as we know it today emerged as an Internet application in the mid-1990s. By the mid-2000s, cable MSOs began adopting it as the technology for their then-nascent voice telephone service offerings, and a number of "over-the-top" VoIP-based services, such as Skype, Vonage, MagicJack, Ring Central and Ooma began to capture successively larger shares of the "long distance" market that had long been the domain of a handful of large interexchange carriers, including AT&T, along with MCI and Sprint. VoIP was also rapidly adopted by mid-size and large business and government customers. The growth of wireless service pricing that

123. 47 U.S.C.§271.



<sup>121.</sup> I/MO the Joint Application of Pacific Telesis Group (Telesis) and SBC Communications, Inc. (SBC) for SBC to Control AT&T California (U 1001 C), Which Will Occur Indirectly as a Result of Telesis' Merger With a Wholly Owned Subsidiary of SBC, SBC Communications (NV) Inc., A.96-04-038, D.97-03-067 issued March 31, 1997 1997 Cal. PUC LEXIS 629; Applications of Pacific Telesis Group and SBC Communications, Inc. for Consent to Transfer Control of Pacific Telesis Group and its Subsidiaries, FCC Report No. LB-96-32, Memorandum Opinion and Order, FCC 97-28, Rel. January 31, 1997.

<sup>122.</sup> *I/M/O SBC Communications Inc. and AT&T Corp. Applications for Approval of Transfer of Control*, FCC WC Docket No. 05-65, *Memorandum Opinion and Order*, FCC 05-183, Rel. November 17, 2005.

<sup>124.</sup> D. 02-09-050; R. 93-04-003; I. 93-04-002, R.95-04-043; I.95-04-044, Decision Granting AT&T California Telephone Company's Renewed Motion for an Order That it Has Substantially Satisfied the Requirements of the 14-point Checklist in § 271 of the Telecommunications Act of 1996 and Denying That it Has Satisfied § 709.2 of the Public Utilities Code, 2002 Cal. PUC LEXIS 619.

eliminated any distinction between "local" and "long distance" calling further eroded the demand for and use of legacy wireline circuit-switched long distance service.

#### **Competition and deregulation**

As noted in Chapter 2, there were also major regulatory changes introduced over the three decades following the 1984 break-up of the former Bell System. In 1989, the CPUC adopted the "New Regulatory Framework" ("NRF") that replaced traditional cost-plus rate-of-return regulation of ILEC prices and earnings with a new scheme known as "price caps."<sup>125</sup> Under price cap regulation, the aggregate price level would be adjusted annually based upon economywide inflation rates rather than changes in a carrier's own costs, then offset by a fixed "productivity" adjustment (known as the "X-factor" in the price cap formula) and further adjusted to recognize certain exogenous conditions that were deemed to fall outside of the carriers' control, such as certain tax changes and changes in law. The NRF was initially applied to the two largest ILECs in California – AT&T California and GTE-California.

One key provision of the NRF was a process by which price regulation for certain individual services could be eliminated if it was determined by the Commission that sufficient competition had emerged so as to obviate any further need for price regulation.<sup>126</sup> That deregulation process was further accelerated by the CPUC's adoption, in 2006, of the *Uniform Regulatory Framework* ("URF").<sup>127</sup> *URF* called for the detariffing of all retail ILEC services with the exception of basic residential access ("POTS"), which were to remain subject to price caps up until January 1, 2009.<sup>128</sup> However, the Commission also concluded that "[t]he basic residential service in California should remain affordable and should not trend above the current highest basic residential rate in the state" and that it "retains the authority and firm resolve, should it see evidence of market power abuses, to reopen this proceeding and promptly investigate any such abuses."<sup>129</sup>

In 2005, the FCC both preempted and deregulated the then-dominant form of high-speed Internet access known as "Digital Subscriber Line" ("DSL") service, which was provided by ILECs using the same physical copper loop that was already in place and long being used to

<sup>129.</sup> Id., at Conclusions of Law (COL) 31-32.



<sup>125.</sup> I. 87-11-033, D.89-10-031, issued October 12, 1989.

<sup>126.</sup> Id., at Conclusion of Law (COL) 16.

<sup>127.</sup> Order Instituting Rulemaking on the Commission's Own Motion to Assess and Revise the Regulation of Telecommunications Utilities, R. 05-04-005, D.06-08-030 issued August 24, 2006.

<sup>128.</sup> Id., at Conclusions of Law (COL) 29-30.

provide basic local exchange service.<sup>130</sup> In 2012, the California legislature further narrowed the scope of CPUC regulation when it adopted PU Code § 710, which deregulated all services that were furnished using VoIP technology.<sup>131</sup>

### AT&T California remains the underlying provider of most retail local network services being offered under the AT&T California or other AT&T affiliate brand names

The scope of the direct retail offerings by AT&T California has been narrowed, however, mainly to legacy circuit-switched local access and message services. Broadband Internet access is provided utilizing many of the same AT&T California network facilities as POTS. Bundles of circuit-switched local and long distance telephone service are furnished jointly by AT&T California and by AT&T's long distance affiliate. From its recent acquisition of DirecTV, AT&T is also offering bundles of voice, Internet and satellite TV services furnished by several affiliates. Notably, the retail customer for most of these bundles still receives only one monthly bill, issued by AT&T California (AT&T California), on behalf of itself and whichever other AT&T affiliates are jointly furnishing the customer's service. Mechanically, and with the exception of tariffed switched and special access services, each of the providing affiliates will "purchase" the underlying network services and functions, including billing and collection services, from AT&T California at mutually-agreed-upon prices.<sup>132</sup> Where tariffed services are involved, the affiliate will (presumably) be charged the tariff rates.

From the perspective of most residential consumers, the organizational assignment of responsibility for the individual retail offerings, while nominally disclosed on the customer's monthly bill, is of little interest or consequence: Most direct contacts between retail residential/ small business customers and AT&T are accomplished via AT&T California, irrespective of which entity is nominally responsible for the retail provision of a particular service within the customer's service bundle.

Even where AT&T California is not the retail provider of a particular service or service component, its role as the underlying network provider requires that its network be capable of supporting these various affiliate-offered services. For example, AT&T California has been upgrading its network to support several types of broadband services – *U-verse* brand IPTV, *U-verse* brand Internet, and *U-verse* brand VoIP-based phone service – by extending fiber into



<sup>130.</sup> Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Report and Order and Notice of Proposed Rulemaking, 20 F.C.C.R. 14853 (2005) ("BWIA Order").

<sup>131.</sup> Stats. 2012, Ch 733, Sec 3. (SB 1161) Effective January 1, 2013. Repealed as of January 1, 2020, by its own provisions.

<sup>132.</sup> This is undoubtedly an overly simplified description. AT&T Inc., the parent company, is the ultimate owner of several hundred domestic and foreign affiliates. Most inter-affiliate financial transactions and relationships are opaque, both as to their precise nature and their magnitude.

individual neighborhoods in relatively close proximity to its end-user customers under a Fiberto-the-Node ("FTTN") architecture. As of the end of 2017, some 557 out of the total of 615 AT&T California wire centers had been upgraded to support at least one if not all three of these broadband services.<sup>133</sup>

As discussed in Chapter 4, although the *motivation* behind the deployment of FTTN and other network upgrades is the capability to offer broadband services to compete with cable MSO offerings, once installed these same facilities can and will be used to provide legacy POTS and other circuit-switched services.

## The AT&T California component of parent AT&T Inc. revenues have been steadily diminishing, as has the share of the overall AT&T capital budget that is being allocated to the California ILEC.

Over the 2010-2017 period, AT&T California's parent AT&T Inc. has experienced significant growth in its overall gross revenues, rising 29.2% from \$124.3-billion in 2010 to \$160.5-billion in 2017. AT&T's market capitalization is approximately \$240-billion.<sup>134</sup> The primary sources of that growth have come from wireless services, where the number of AT&T Mobility connections nationwide grew by 41.2% between 2010 and 2016 (the most recent date for which FCC data is available),<sup>135</sup> and from acquisitions, primarily from DirecTV. The 2018 acquisition of Time Warner, whose own revenues in 2017 were \$31.27-billion,<sup>136</sup> will obviously push AT&T Inc.'s revenues up even further.



AT&T senior management's interest in and attention to its legacy wireline ILEC operations has been largely supplanted by its wireless operations and the recent satellite TV and video content acquisitions.

AT&T California revenues, on the other hand, have been moving in the opposite direction. As shown on Table 7.1 below, in 2010, AT&T California gross revenues were \$9.70-billion, dropping to \$8.63-billion in 2017. AT&T California's share of total AT&T Inc. revenues has fallen by an even greater amount, from 7.80% in 2010 to 5.37% in 2017.

135. FCC Sixteenth CMRS Report, FCC 13-34, at p. 55, Table 13; Seventeenth CMRS Report, DA 14-1862, at p. 11, Table II.B.1, Nineteenth CMRS Report, DA 16-1061, at p. 11, Table II.B.1; Twentieth CMRS Report, FCC 17-126, at p. 15, Table II.B.1.

136. Time Warner Inc. 2017 Form 10-K, at 135.



<sup>133.</sup> AT&T California Response to CD Data Request 01A.

<sup>134.</sup> As of August 17, 2018.

Table 7.1										
AT&T CALIFORNIA AND AT&T INC. TOTAL OPERATING REVENUES 2010-2017 (\$000,000)										
	2010 2011 2012 2013 2014 2015 2016 2017									
AT&T Inc.	124,280	126,723	127,434	128,752	132,447	146,801	163,786	160,546		
AT&T CA	9,697	9,754	9,374	9,580	9,641	10,008	9,441	8,626		
AT&T CA %	AT&T CA % 7.80% 7.70% 7.36% 7.44% 7.28% 6.82% 5.76% 5.37%									
Source: AT&T I	nc. Annual R	eports 2010-	2017; AT&T	CA ARMIS I	Form 43-01 a	as filed with (	CPUC.			

As discussed in Chapter 4, AT&T California has experienced a precipitous drop in total legacy circuit-switched access lines over the 2010-2017 period. Nationally, AT&T Inc. has actually sustained a slightly greater access line loss than its California subsidiary, as shown in Table 7.2 below:

Table 7.2										
AT&T CALIFORNIA AND AT&T INC. LEGACY SWITCHED ACCESS LINES IN SERVICE 2010-2017 (000)										
	2010 2011 2012 2013 2014 2015 2016 2017									
AT&T Inc.	41,883	36,734	31,887	24,639	19,896	16,670	13,986	11,753		
AT&T CA	7,602	6,681	5,837	4,996	4,149	3,415	2,872	2,417		
AT&T CA %	18.15%	18.19%	18.31%	20.28%	20.85%	20.49%	20.54%	20.56%		
Source: AT&T Ir Trouble Reports year.	Source: AT&T Inc. Annual Reports 2010-2017; CA POTS lines in service derived from GO 133-C § 3.3 and 3.4 Trouble Reports per 100 Lines (TRPH) quarterly filings, 2010-2017. Switched access lines are average over each vear.									

Thus, where AT&T nationally experienced a net legacy switched access line decrease of 71.9% over the 2010-2017 period, for California, AT&T's switched access lines decreased by slightly less, about 68.2%. Notably, however, despite experiencing a 68.2% drop in legacy switched access lines over the period, AT&T California gross revenues decreased by only 11.04% over the same period, as summarized on Table 7.3 below:



	Table 7.3										
AT&T CALIFORNIA OPERATING REVENUES DECREASED, BUT BY FAR LESS THAN THE DECREASE IN LEGACY SWITCHED ACCESS LINES 2010-2017 (\$000,000 and 000)											
	2010 2011 2012 2013 2014 2015 2016 2017										
Revenues	\$ 9,697	\$ 9,754	\$ 9,374	\$ 9,580	\$ 9,641	\$10,008	\$ 9,441	\$ 8,626			
% of 2010		100.59%	96.67%	98.79%	99.42%	103.21%	97.36%	88.96%			
Switched access lines	7,602	6,681	5,837	4,996	4,149	3,415	2,872	2,417			
% of 2010	% of 2010 87.88% 76.78% 65.72% 54.58% 44.92% 37.78% 31.79%										
Source: AT&T CA Reports per 100 Li	ARMIS Form nes (TRPH) qu	43-01 as filed uarterly filings,	with CPUC; P 2010-2017.	OTS lines in s Switched acce	ervice derived ss lines are av	from GO 133 verage over ea	-C § 3.3 and 3 ich year.	.4 Trouble			

Of course, a portion of AT&T California operating revenues come from services other than legacy POTS lines. It is thus instructive to compare the decrease in switched access lines more directly with the principal revenue sources associated with these services. Fortunately, more detailed revenue data is provided in the annual financial reports, ARMIS Forms 43-01, 43-02 and 43-03, filed by AT&T California with the CPUC:



Despite experiencing a 68.2% drop in legacy switched access lines from 2010 through 2017, AT&T California's gross revenues decreased by only 11.04% over the same period.



Table 7.4									
AT&T CALIFORNIA LEGACY SWITCHED ACCESS LINE REVENUES HAVE DECREASED BY A GREATER PERCENTAGE THAN FOR TOTAL OPERATING REVENUES GENERALLY, BUT STILL BY FAR LESS THAN THE DECREASE IN LEGACY SWITCHED ACCESS LINES 2010-2017 (\$000 and 000)									
	2010	2011	2012	2013	2014	2015	2016	2017	
USOA Acct 5001 Basic Area Rev	\$2,118,017	\$ 2,121,000	\$ 1,966,000	\$ 1,882,000	\$ 1,729,553	\$ 1,579,000	\$ 1,448,000	\$ 1,258,000	
USOA Acct 5081 EUCL Revenue	\$ 627,273	\$ 538,000	\$ 492,000	\$ 452,000	\$ 404,625	\$ 363,000	\$ 333,000	\$ 300,000	
USOA Acct 5082 Switched Access	\$ 320,356	\$ 278,617	\$ 282,585	\$ 262,064	\$ 260,174	\$ 220,886	\$ 180,913	\$ 113,694	
Total switched access line rev	\$3,065,646	\$2,937,617	\$2,740,585	\$2,596,064	\$2,394,352	\$2,162,886	\$1,961,913	\$1,671,694	
Switched access lines (000)	7,602	6,681	5,837	4,996	4,149	3,415	2,872	2,417	
\$ per Switched access line	\$403.27	\$439.70	\$469.52	\$519.63	\$577.09	\$633.35	\$683.12	\$691.64	
Source: AT&T CA Reports per 100 Lin	ARMIS Form 4 nes (TRPH) qu	l3-01 as filed v arterly filings,	with CPUC; PC 2010-2017. S	DTS lines in se witched acces	ervice derived s lines are ave	from GO 133- erage over eac	C § 3.3 and 3. ch year.	4 Trouble	

When confined to only those revenue sources directly attributable to legacy switched access line services – specifically, USOA Account 5001 (Basic Area Revenue),<sup>137</sup> USOA Account 5081 (End User Common Line revenue),<sup>138</sup> and USOA Account 5082 (Switched Access revenue),<sup>139</sup>

137. 47 CFR §32.5001 defines "Basic Area Revenues" to "include revenue derived from the provision of the following: (1) Basic area message services such as flat rate services and measured services. Included is revenue derived from non-optional extended area services. Also included is revenue derived from the billed or guaranteed portion of semi-public services. (2) Optional extended area service. (3) Cellular mobile telecommunications systems connected to the public switched network placed between mobile units and other stations within the mobile service area. (4) General radio telecommunications systems connected to the public switched network placed between mobile units and other stations within the mobile service area, as well as revenue from mobile radio paging, mobile dispatching, and signaling services. (b) Revenue derived from charges for nonpublished number or additional and boldfaced listings in the alphabetical section of the company's telephone directories shall be included in account 5230, Directory revenue. (c) Revenue from private mobile telephone services which do not have access to the public switched network shall be included in Account 5200, Miscellaneous revenue.

138. 47 CFR § 32.5081 End user revenue: (a) This account shall contain federally and state tariffed monthly flat rate charge assessed upon end users. (b) Subsidiary record categories shall be maintained in order that the company may separately report amounts related to federal and state tariffed charges.

139. 47 CFR § 32.5082 Switched access revenue. (a) This account shall consist of federally and state tariffed charges assessed to interexchange carriers for access to local exchange facilities. (b) Subsidiary record categories shall be maintained in order that the company may separately report the amounts contained herein that relate to limited pay telephone, carrier common line, line termination, local switching, intercept, information, common transport and dedicated transport. The subsidiary records shall also separately show the federal and state tariffed



AT&T California legacy access line-related revenues decreased by only about 45%, significantly below the 68.2% drop in switched access line demand. Significantly, Account 5082 Switched Access Revenues – revenues from charges that AT&T California collects when its legacy access line customers originate or receive an interLATA long distance call – decreased by almost as much as the number of legacy switched access lines -65% vs. 68.2%. Switched access rates, which remain subject to tariff at both the state and federal levels, had remained unchanged over the 2010-2017 period.

Even when confined to only those revenue sources directly attributable to legacy switched access line services, AT&T California legacy access line-related revenues decreased by only about 45%, significantly below the 68.2% drop in switched access line demand.

AT&T California's response to the rapidly eroding demand for legacy POTS services has not been to cut prices to retard such "cord-cutting," but instead to implement large rate increases so as to "harvest" as much revenue from the remaining POTS customers as long as they continue to retain their service.

The 2006 URF decision allowed California's large ILECs to *detariff* most of their retail services.<sup>140</sup> As we discussed in Chapter 4A, as soon as detariffing of residential rates took effect in January 2009, AT&T implemented a 26.3% rate increase for flat-rate residential service and a 27.7% increase for measured residential service. A succession of rate increases has continued ever since, and by the end of 2017 AT&T California's rates for flat-rate and measured residential POTS access lines had risen to 152.6% and 325.4% of their pre-URF levels, respectively. This succession of rate increases for legacy POTS services is summarized in Chapter 4A, at Table 4A.10.



To support its "harvesting" strategy and maintain revenues despite a massive drop-off in demand, AT&T California has raised its rates for legacy flat-rate residential service by 152.6% since the service was de-tariffed by the CPUC in 2009.

These regular and ongoing increases in legacy circuit-switched POTS access line rates are entirely consistent with the type of "harvesting strategy" discussed in Chapter 4. While putatively "subject to competition," these legacy services have been on the decline over the entire 2010-2017 period as customers replace them with AT&T U-verse digital service bundles

<sup>140.</sup> PU Code § 871.5(a) caps LifeLine rates at one-half of the 1FR rate for flat-rate basic residential service.



charges. Such subsidiary record categories shall be reported as required by part 43 of this chapter.

of voice, Internet access and video, or with competitor-provided wireline services, or with wireless. A "harvesting strategy" can be pursued where it is determined that, while some customers will discontinue their service in response to the steadily increasing prices, there are still a sufficient number of customers who confront few if any actual competitive alternatives and/or who simply retain their AT&T legacy POTS service due to inertia – they simply haven't gotten around to seeking our any alternatives.

#### 13

AT&T California's response to the erosion of the market for legacy POTS services has been to raise prices, cut back on investment and maintenance, and instead "harvest" those customers that remain on its network for as long as they continue to take their service.

A company will raise its prices only where such an action will result in an increase in profit overall, where the price elasticity of demand is sufficiently low such that, even though some small percentage of customers will discontinue their service, that loss of business will be less than the additional revenues that result from the price increase being paid by customers who remain. AT&T's conduct with respect to these legacy POTS-type services demonstrates that the Company does not perceive them as being subject to so much competition that it must maintain its prices at competitive levels.

Additionally, even where some POTS customers are induced to seek an alternative service in response to a price increase, many will end up purchasing the substitute service from the same provider, AT&T California and/or its wireless affiliate, AT&T Mobility in this case. Indeed, one effect of raising the price of the legacy service is to reduce the *differential in price* between that service and the higher-priced digital service bundles, thus accelerating the migration of customers away from POTS. A companion strategy is to reduce the price of the substitute service – the *U-verse* Internet + Phone bundle in this case – while simultaneously raising the price of the legacy service. AT&T California has been doing just that, to the point where the Internet + Phone bundles is often *lower* than the price of POTS, particularly when certain optional features and long distance services are included. Coupled with the deteriorating service quality associated with POTS services as discussed in Chapter 4, the fact that AT&T has been able to profitably implement this succession of annual rate increases for more than a decade since the implementation of *URF* raises serious questions as to the Commission's conclusion in *URF* that competition had developed to a point where continued regulatory protection of basic residential telephone service prices is no longer required or appropriate.



The fact that AT&T has been able to profitably implement a succession of large annual legacy services rate increases for more than a decade since the implementation of URF raises serious questions as to the Commission's conclusion in URF that competition had developed to a point where continued regulatory protection of basic residential telephone service prices is no longer required or appropriate.

## AT&T California has been consistently *disinvesting* in its California local network infrastructure.

Because AT&T California is a wholly-owned subsidiary of AT&T Inc., it is the parent AT&T Inc. that determines the amount of capital investment funds that will be available for local infrastructure investment by its individual operating companies. AT&T California dividends out some portion of, all or, as has been the case for the last two years, more than all of its net operating income to its parent. Table 7.5 below summarizes AT&T California net income and dividend payments to its sole shareholder over the 2010-2017 period:

	Table 7.5									
AT&T CALIFORNIA NET INCOME AND DIVIDEND PAYMENTS TO PARENT AT&T INC. 2010-2017 (\$000)										
	2010	2011	2012	2013	2014	2015	2016	2017	Total	
AT&T-CA Net Income	(2,318,705)	(833,514)	(213,584)	1,531,443	608,020	1,921,482	1,493,479	1,210,137	3,398,758	
Dividend paid to AT&T	1,355,722	0	0	0	1,354,158	1,527,615	1,861,782	1,507,216	7,606,493	
Change in Retained Earnings	- 3,674,407	- 833,514	- 213,584	+1,531,443	- 746,138	+ 393,867	- 368,303	- 297,079	-4,207,735	
Source: AT&T (	CA ARMIS For	ms 43-02 a	s filed annu	ally with CPL	JC.					

Cumulatively, over the full 8-year period, AT&T California had total net after-tax income of \$3.4-billion, but paid out \$7.6-billion to its parent company, AT&T Inc, thereby eroding the California company's capital base by roughly \$4.2-billion and impairing its ability to maintain and upgrade its aging infrastructure.



Thus, rather than reinvesting a portion of its net income back into its network, AT&T California has, at least for the past several years, been *disinvesting* by paying out more in dividends to its sole stockholder than it generated as profits from its operations.



AT&T, Inc. has also been eroding its California ILEC's capital base by investing less in its infrastructure than its annual depreciation accruals and retirements.

And this is not the only indication of a *disinvestment* policy on the part of AT&T, as is further demonstrated in Table 7.6 below:

	Table 7.6									
AT&T CALIFORNIA PATTERN OF INVESTMENT 2010-2017 (\$000)										
	2010	2011	2012	2013	2014	2015	2016	2017		
BOY Gross Telecom Plant in Service (TPIS)	38,012,545	38,820,045	41,239,852	41,885,833	41,171,577	40,334,511	40,592,685	40,459,982		
Gross Plant Additions	1,294,281	2,823,661	1,026,656	1,349,988	1,003,950	692,124	840,929	1,126,575		
Retirements	(469,928)	(371,653)	(459,523)	(2,041,895)	(1,833,538)	(440,952)	(951,050)	(4,979,833)		
Adjustments	(16,853)	(32,201)	70,848	(22,349)	(7,478)	7,002	(45,145)	(45,145)		
EOY Gross Telecom Plant in Service	38,820,045	41,239,852	41,885,833	41,171,577	40,334,511	40,592,685	40,459,982	36,561,579		
Annual TPIS depreciation accruals (acct 6561)	2,269,324	2,317,862	2,263,393	1,635,691	1,179,213	980,435	894,384	948,481		
Cumulative depreciation reserve	30,725,620	33,919,953	35,789,894	35,483,033	35,212,622	35,737,860	35,667,638	31,669,055		
Net EOY TPIS	8,094,425	7,319,901	6,095,939	5,688,544	5,121,889	4,854,825	4,792,344	5,002,131		
Source: AT&T CA and 3.4 Trouble Re over each year.	ARMIS For eports per 1	rm 43-01 as 00 Lines (T	filed with CF RPH) quarte	PUC; POTS rly filings, 20	lines in servi 10-2017. Sv	ce derived fro vitched acce	om GO 133- ss lines are a	C § 3.3 average		

AT&T California's Gross Telecommunications Plant in Service ("TPIS") remained relatively constant in the \$38- to \$41-billion range over the 2010-2017 period. However, total Gross Plant Additions over the period – \$10.16-billion – were exceeded by the total depreciation accruals taken over the corresponding period – \$12.48-billion – representing a net *disinvestment* of \$2.33-billion. In addition, some \$11.55-billion in retirements occurred – more than 43% of it in 2017 alone – bringing end-of-period net TPIS down to only \$5.06-billion.



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The combined effect of large price increases plus disinvestment has enabled AT&T California to achieve earnings levels far in excess of anything that would be allowed under traditional regulatory models.

To put this in perspective, consider the following. In D.16-12-035, the CPUC adopted a set of costs of capital for small ILECs still subject to rate-of-return regulation ranging between 8.44% and 9.22%.<sup>141</sup> AT&T California's Form 43-02 annual financial report for 2017 as submitted to the CPUC puts the company's Net Plant at \$4.97-billion. Small ILECs were typically allowed somewhat higher rates-of-return than large ILECs such as AT&T California, since their smaller size and limited geographic scope tended to elevate their risk above that for the larger ILECs. Thus, if we were to conservatively apply, for example, a 9.0% authorized rate of return (a midpoint in the range adopted by the CPUC) to AT&T California's Net Plant of \$4.97-billion, AT&T California would be allowed net after-tax earnings of \$447.3-million if the company were subject to traditional rate-of-return regulation.

By contrast, Form 43-03 gives AT&T California's 2017 Net after-tax income at \$1.21billion, or \$714-million more than would have been allowed under RORR. Put differently, AT&T California's 2017 return on net investment can be roughly calculated as \$1.21-billion / \$4.97-billion,<sup>142</sup> which works out to a rate of return in the range of 24.33%. This is not a precise calculation as it would be undertaken in a formal General Rate Case under RORR. In a General Rate Case under RORR, various adjustments would be examined whose effect could be to either increase or reduce the reported RORR.

But even AT&T California's nominally reported revenues, expenses and net income cannot by themselves provide a complete or accurate picture of the ILEC entity's financial performance. This is because of the extensive nature and amount of inter-affiliate transactions that take place on an ongoing basis between the AT&T California ILEC entity and numerous other affiliates that are themselves, directly or indirectly, wholly owned by the parent company AT&T Inc. These transactions involve both *purchases* made by the ILEC from other AT&T affiliates as well as *sales* made by the ILEC to other AT&T affiliates. Table 7.7 below provides a summary of these transactions and their relationship to AT&T California's overall revenues, operating expenses, and net income.

<sup>142.</sup> AT&T California 2017 Form 43-02, Table B-1, p. 3.



<sup>141.</sup> Application of Calaveras Telephone Company et al ("Independent Small ILECs") for a Determination of Applicants. Cost of Capital for Ratemaking Purposes, A.15-09-005, D.16-12-035, at Ordering Paragraph 1.



AT&T California financial statements show an incomplete assessment of the ILEC's financial condition due to the large volume of inter-affiliate transactions made at transfer prices that are not set on the basis of arm's length negotiations.

AT&T's ILECs are organized into a number of mostly state-level operating subsidiaries, although some of the AT&T ILEC entities provide service in several states. Other AT&T "service company" entities provide a range of centralized services to the ILECs as well as to other non-ILEC AT&T operations. The use of centralized services has a long history in the telecommunications industry, dating back to AT&T Bell System days, when the AT&T General Department provided a broad range of back-office services and Bell Laboratories provided centralized research and development for the entire AT&T corporate family. In theory, the use of centralized services should produce scale and scope efficiencies that would then benefit all of the using entities. In practice, this is not always the case. AT&T, Verizon and their predecessors, in particular, have a long history of employing the use of centralized services organizations to extract profits from their operating telephone companies.



Table 7.7 AT&T CALIFORNIA AFFILIATE TRANSACTIONS WITH OTHER UNITS OF AT&T INC. 2010-2017 (\$000)										
	2010	2011	2012	2013	2014	2015	2016	2017		
AT&T-California operating revenue	9,696,777	9,754,246	9,373.754	9,580,095	9,641,220	10,007,776	9,440,692	8,626,042		
Sales to other AT&T affiliate	2,978,741	2,942,621	1,566,044	1,700,570	1,645,297	1,864,210	1,967,601	1,681,965		
Pct from sales to affiliates	30.72%	30.17%	16.71%	17.75%	17.07%	18.63%	20.84%	19.50%		
AT&T CA pre-tax OpEx excl depr/amort <sup>143</sup>	10,715,929	5,688,139	6,899,881	4,736,569	7,025,256	5,241,041	5,575,240	5,267,556		
Services Purchased from AT&T affiliates	2,122,027	2,458,684	2,712,380	2,657,560	2,884,788	3,185,779	3,135,299	2,762,898		
Pct of total OpEx paid to affiliates	19.80%	43.22%	39.31%	56.11%	41.06%	60.79%	56.24%	52.45%		
AT&T-CA Net Income	(2,318,705)	(833,514)	(213,584)	1,531,443	608,020	1,921,482	1,493,479	1,210,137		
Source: AT&T CA A	RMIS Form	43-02, Tab	le I-2, Form	43-03, as f	iled annual	ly with CPUC	).			

With the exception of tariffed switched and special access services that are being purchased from AT&T California by various other AT&T affiliates, the specific *transfer prices* at which these transactions are recorded can hardly be viewed as being set on the basis of arm's length negotiations. Since both the seller and buyer in each instance are wholly-owned by the same parent company, the nominal transfer price has little or no effect upon the parent company's bottom line. However, if it is the parent company's goal to extract cash from the ILEC entity, setting an inflated transfer price can accomplish this as effectively as making a dividend payment to the parent, but with far less exposure as to the precise purpose of the policy. As Table 7.8 demonstrates, in four out of the last five years, *more than 50% of AT&T California total operating expenses net of depreciation and amortization were paid over to other AT&T affiliates for services rendered*.

That this type of manipulation may have occurred is hardly idle speculation. In fact, AT&T and its post-1984 RBOC offspring have a long history of such transactions. In California, for

<sup>143.</sup> Amounts shown are calculated as Total Operating Expenses (Form 43-03 Line 720) – Depreciation/ Amortization expenses (Form 43-03 Line 6560), which represents current cash operating expenses. The source data for this calculation is as follows:

	2010	2011	2012	2013	2014	2015	2016	2017
Line 720 Total Operating Exp	13,010,515	8,006,001	9,163,274	6,356,472	8,216,812	6,212,753	6,469,624	6,206,258
Line 6560 Depre/Amort	2,294,586	2,317,862	2,263,393	1,619,903	1,191,556	971,712	894,384	938,702



example, the Commission would routinely include an examination of affiliate transactions between AT&T California and other affiliates, and would in some cases adjust the transfer price for regulatory purposes. As far back as 1968, the CPUC had initiated an investigation into the prices being charged by Western Electric, then the AT&T manufacturing affiliate, for telecommunications equipment being purchased by (then) Pacific Telephone and Telegraph Company (PT&T).<sup>144</sup> The fact that the CPUC has been regularly collecting information on, and monitoring, both sales to and purchases from affiliates underscores the legitimacy of this concern.

One particularly well-known example of this conduct is the case of the NYNEX Materiel Enterprises Company ("MECO") that was created by NYNEX following the Bell System breakup to provide centralized procurement services to the two NYNEX ILEC affiliates – New York Telephone Company ("NYT") and New England Telephone Company ("NET"). MECO would purchase equipment and supplies from vendors, and then resell it at a markup to the two ILECs. In 1990, the NYPSC initiated an investigation of NYT's purchasing practices and, in particular, its purchases from and through MECO.<sup>145</sup>

The NYPSC determined that an independent auditor would be hired to perform a thorough investigation of NYT's transactions with affiliates and determine their financial effects on NYT's ratepayers. In a subsequent session, NYT was ordered to perform a cost/benefit analysis for directory services it provided to ratepayers in order to establish whether the transactions and arrangements between NYT and its affiliate NYNEX Information Resources Company ("NIRC") were best serving the public.<sup>146</sup> After seven years of discovery and other efforts, a settlement agreement was approved in 1997 that resolved both cases. In exchange for an end to the investigation of NYT's transactions with affiliates, the settlement provided refunds of \$30-million for transactions with NIRC and another \$53-million for transactions with affiliates other than NIRC (including MECO).<sup>147</sup>



<sup>144.</sup> Investigation into Practices and Contracts of PT&T Co., Case No. 8858, Decision No. 76726, January 27, 1970, 1970Cal. PUC LEXIS 86, 70 CPUC 644.

<sup>145.</sup> Proceeding on Motion of Commission to Investigate Transactions Among New York Telephone Company and its Affiliates, New York Public Service Commission, Case Nos. 90-C-0191 and 90-C-0912, Order Granting Interlocutory Appeal In Part, November 26, 1990.

<sup>146.</sup> Proceeding on Motion of the Commission to Investigate the Directory Publishing Operations of New York Telephone Company and NYNEX Affiliates State of New York Public Service Commission Case No. 92-C-0272, Order Instituting Proceeding, April 1, 1992, at 5-6.

<sup>147.</sup> Id., Opinion and Order Approving Settlement with Modifications, June 5, 1997.

# Persistent disinvestment, extensive affiliate transactions at self-serving transfer prices, extraordinarily large rate increases, and deteriorating service quality all point to "harvesting" as AT&T California's overarching strategy for its legacy services and customers.

These extensive affiliate transactions, the directly measurable indicators of disinvestment – depreciation accruals that exceed gross additions, payments of dividends to the parent company that exceed the nominally reported net income, and the persistent erosion of AT&T California's Net Plant – and the deteriorating service quality overall, together compel certain conclusions as to AT&T California's overall financial condition and investment policies:

- (1) The succession of annual rate increases applicable to AT&T California's legacy POTS services were not in any sense cost-driven or cost-based, and instead appear to have been driven by the company's pursuit of a harvesting strategy with respect to these services.
- (2) Earnings of this magnitude confirm that AT&T California's harvesting strategy is achieving the intended increases in profitability without the need for the infusion of large amounts of new capital investment in the company's local network infrastructure.
- (3) Persistent *disinvestment* in the AT&T California local network has been the principal source of the erosion in the net book value of the company's Telecommunications Plant in Service and the resulting escalation of the result of return on its remaining net investment.
- (4) Persistent disinvestment, deterioration in service quality, and escalating prices for AT&T California's basic residential services are not consistent with the level of competition that has been portrayed by AT&T California and that the Commission has accepted as a basis for its adoption and continuation of the Uniform Regulatory Framework.

### Wireline voice services have not been the focus of AT&T California's capital investments over the 2010-2017 period.

Under the FCC's Uniform System of Accounts and associated financial reporting requirements. ILECs had been required to maintain a set of regulatory accounting records in a form established by the FCC, and to report various aspects of their capital investments among a number of functional categories.<sup>148</sup> They had also been required to report, by category (USOA

<sup>148.</sup> To facilitate its regulatory mission, the FCC in 1935 established a "Uniform System of Accounts" ("USOA") as detailed in Part 31 of its Rules (47 CFR § 31). In 1986, the USOA was revised and expanded, and Part 31 was superseded entirely by a new Part 32 (47 CFR § 32). The FCC also adopted a reporting protocol known as the "Automated Reporting Management Information System" ("ARMIS"). In 2007 the FCC decided that it would forbear from requiring ARMIS reporting by ILECs after 2007. *Petition of AT&T Inc. for Forbearance Under 47 U.S.C. § 160(c) From Enforcement of Certain of the Commission's ARMIS Reporting Requirements; Petition of* 



account), annual Gross Additions, Retirements, annual and cumulative Depreciation Accruals, and gross and net telecommunications plant in service ("TPIS"). Much of this information was also being maintained at the individual wire center level. Data for the 2010-2017 period was provided to ETI by AT&T California pursuant to data requests.<sup>149</sup> Over the June 30, 2010 through December 21, 2017 period, AT&T California made Gross Additions to its TPIS totaling just under \$9-billion.<sup>150</sup> Table 7.8 below breaks this down among the various USOA account categories.

In 2017, the FCC determined that "price cap ILECs" – those large carriers that are subject to FCC price cap rather than rate-of-return regulation - will no longer be required to maintain separate USOA accounting records after 2017.<sup>151</sup> This study has benefitted greatly from the availability of ARMIS-type reporting by the two ILECs that are under examination here. Although the FCC no longer requires that AT&T California and Frontier California maintain accounting records pursuant to the USOA as it had existed prior to the 2017 ruling, the FCC Order explicitly provides that "[n]othing in this Order precludes a state or regulatory agency, or another party as part of a contractual requirement, from requiring a carrier to maintain the Class A accounts or otherwise maintain the USOA. See, e.g., 17 CFR § 1770.11 (requiring Rural Utility Service borrowers to maintain Class A accounts)."<sup>152</sup> And in her Statement Approving in Part and Concurring in Part, FCC Commissioner Mignon L. Clyburn remarked, "So to those carriers who advocate for decreased regulatory burdens, let me assure you: I am with you. However, the next time this Commission or a state commission asks for cost data, to support a rulemaking, investigate a complaint, or bring an enforcement action, I hope we do not hear protestations that the request is too burdensome because the data is not kept in the format that the FCC or state commission needs."

Among the specific Recommendations that we offer in Chapter 12 of this Report, we believe that the important role that the Part 32 accounting data has played in this study makes a compelling case that this and the associated ARMIS-type annual reporting be maintained in California.

152. Id., at 7, fn. 51.



*Qwest Corporation for Forbearance from Enforcement of the Commission's ARMIS and 492A Reporting Requirements Pursuant to 47 U.S.C. § 160(c)*, WC Docket No. 07-139 *et al. Memorandum Opinion and Order and Notice of Proposed Rulemaking*, Rel. September 6, 2008, FCC 08-203: However, Part 32 USOA requirements remained in effect, and state commissions were not precluded from continuing to require such reporting. The CPUC has required that URF ILECs, including AT&T California and Verizon (now Frontier) California continue to submit ARMIS-type reports on an annual basis. *See*, GO 104-A, D. 93-02-019.

<sup>149.</sup> AT&T California June 4, 2018 response to DR-03A, corrected by AT&T California on August 6, 2017.

<sup>150.</sup> AT&T California Response to DR-03A, as corrected 8/6/18

<sup>151.</sup> *I/M/O Comprehensive Review of the Part 32 Uniform System of Accounts*, WC Docket No. 14-130; *Jurisdictional Separations and Referral to the Federal-State Joint Board*, CC Docket No. 80-286, *Report and Order*, FCC 17-15, Rel. February 24, 2017.

	Table 7.8							
	AT&T CALIFORNIA							
	GROSS PLANT ADDITIONS 2010-2017	,						
Account	Account name	TOTAL 2010-17						
2003	Telecommunications plant under construction	(8,066,786,096)						
2111	Land	(9,977,959)						
2112	Motor vehicles.	214,515,947						
2114	Tools and other work equipment.	98,120,967						
2121	Buildings	429,300,823						
2122	Furniture	16,832						
2123	Office Equipment	65,169						
2124	General purpose computers	37,922,921						
2211	Non-digital switching	605,095						
2212	Digital electronic switching	5,595,666,673						
2220	Operator systems	8,279,498						
2231	Radio systems	97,567,584						
2232	Circuit equipment	9,723,463,826						
2341	Large private branch exchanges	7,234,433						
2362	Other terminal equipment.	686,522,316						
2411	Poles	8,964,750						
2421	Aerial cable	6,264,904						
2422	Underground cable	3,587,848						
2423	Buried cable	10,352,429						
2424	Submarine & deep sea cable	14,598						
2426	Intra-building network	3,640,192						
2431	Aerial wire	3,303						
2441	Conduit systems	12,705,740						
2682	Leasehold improvements	50,109,763						
2690	Intangibles	67,479,475						
TOTAL		8,985,641,032						
Source: AT&	Response to DR-03A, as corrected 8/6/18							

Approximately \$8-billion of Telecommunications Plant Under Construction (Account 2003) was transferred to other accounts during the period. The two largest areas of investment were in Account 2212 – Digital Electronic Switching (\$6-billion) and in Account 2232 – Circuit Equipment \$9.7-billion). Account 2212 is further broken down into two subaccounts – Account 2212.1 – Circuit Switching, and Account 2212.2 – Packet Switching. The vast majority of new Digital Switching investment over the 2010-2017 period was for Packet Switches. Notably,



Packet Switches, which are used to support VoIP, Internet access and various other advanced services, are *not* used in the provision of basic local POTS services. Account 2232 (Circuit Equipment) is defined as including, principally, "equipment which is used to reduce the number of physical pairs otherwise required to serve a given number of subscribers by utilizing carrier systems, concentration stages or combinations of both. It shall include equipment that provides for simultaneous use of a number of interoffice channels on a single transmission path. ..."<sup>153</sup> Form 43-02 provides a year-by-year breakdown of Gross Additions for each of these two subaccounts, which are summarized in Table 7.9 below:

			Tabl	le 7.9					
AT&T CALIFORNIA DIGITAL ELECTRONIC SWITCHING GROSS ADDITIONS AND RETIREMENTS 2010-2017 (\$000)									
	2010	2011	2012	2013	2014	2015	2016	2017	
ACCOUNT 2212.1	DIGITALE	LECTRONI	CSWITCH		MENI-CI		TCHING		
TPIS, BOY	5,192,369	3,380,463	3,329,989	3,337,443	3,335,875	3,311,678	3,324,271	3,267,116	
Gross Additions	35,900	50,232	25,151	12,512	0	2,564	13,432	9,103	
Retirements	(77,668)	(34,998)	(66,484)	(27,651)	(30,779)	(15,528)	(113,695)	(67,271)	
Adjustments	(1,770,138)	- 65,708	48,767	13,571	6,582	25,557	43,108	33,120	
Net change	(1,811,906)	(50,474)	7,434	(1,568)	(24,197)	12,593	(57,155)	(25,048)	
TPIS, EOY	3,380,463	3,329,989	3,337,443	3,335,875	3,311,678	3,324,271	3,267,116	3,242,068	
ACCOUNT 2212.2	DIGITAL E	LECTRONI	C SWITCH	ING EQUIP	PMENT- PA	ACKET SW	ITCHING		
TPIS, BOY	501,701	2,353,490	2,974,769	3,022,123	3,216,631	3,257,793	3,222,835	,184,665	
Gross Additions	123,201	581,779	116,681	223,916	110,672	48,319	55,088	75,460	
Retirements	(40,342)	(17,780)	(20,772)	(20,810)	(57,629)	(60,564)	(53,777)	(145,206)	
Adjustments	1,768,930	57.280	·48,555	(8,598)	(11,881)	-22,713	(39,481)	(65,731)	
Net change	1,851,789	621,279	47,354	194,508	41,162	(34,958)	(38,170	(135,477)	
TPIS, EOY	2,353,490	2,974,769	3,022,123	3,216,631	3,257,793	3,222,835	3,184,665	3,049,188	
Notes: TPIS="Teleco Source: AT&T Forms	mmunications 43-02	Plant-In-Sei	rvice"; BOY=	"Beginning c	of Year"; EON	∕-"End-of-Ye	ar"		

In 2010, AT&T California appears to have transferred approximately \$1.77-billion worth of Account 2212 digital central office switching equipment from subaccount 2212.1 Circuit Switching to Account 2212.2 Packet Switching. And from 2012 onward, retirements in Account 2212.1 have exceeded gross additions. Over the 2010-2017 period, AT&T California Account 2212.1 Circuit Switching gross additions totaled \$148.9-million, whereas Account 2212.2 Packet Switching gross additions were \$1.34-billion. However, when the 2010 transfer is applied to

153. 47 CFR §32.2322.



these figures, gross Circuit Switching additions were actually a *negative* \$1.62-billion, whereas Packet Switching gross additions, as adjusted for the transfer, were about \$3.1-billion. And not only have the bulk of AT&T California's central office switch investments been in Packet Switching equipment, retirements of Circuit Switches have exceeded new purchases in every year after 2011.

Account 2232 is also broken down into two subaccounts – subaccount 2232.1 includes Electronic circuit equipment; Subaccount 2232.2 includes Optical circuit equipment. Form 43-02 provides a year-by-year breakdown of Gross Additions for each of these two subaccounts, which are summarized in Table 7.10 below:

Table 7.10												
AT&T CALIFORNIA CIRCUIT EQUIPMENT GROSS ADDITIONS AND RETIREMENTS 2010-2017 (\$000)												
	2010	2011	2012	2013	2014	2015	2016	2017				
ACCOUNT 2232.1 ELECTRONIC CIRCUIT EQUIPMENT												
TPIS, BOY	501,701	2,353,490	2,974,769	3,022,123	3,216,631	3,257,793	3,222,835	3,184,665				
Gross Additions	392,755	1,406,660	232,120	320,099	136,296	62,952	47,805	96,967				
Retirements	169,117	167.980	147,660	102,702	207,965	153,629	107,243	283,205				
Adjustments	-3,267	4,551	32,261	8,209	7,035	2,952	5,672	(7,811)				
Net change	220,371	1,243,231	116,721	225,606	-64,634	(87,725)	(53,766)	(194,049)				
TPIS, EOY	2,353,490	2,974,769	3,022,123	3,216,631	3,257,793	3,222,835	3,184,665	3,049,188				
ACCOUNT 2213.2												
TPIS, BOY	0	0	0	0	0	21	50	788				
Gross Additions	0	0	0	0	6	29	58	931				
Retirements	0	0	0	0	0	0	-895	-4,072				
Adjustments	0	0	0	0	15	0	1,575	4,137				
Net change	0	0	0	0	21	29	738	996				
TPIS, EOY	0	0	0	0	21	50	788	1,784				
Notes: TPIS="Telecommunications Plant-In-Service"; BOY="Beginning of Year"; EOY-"End-of-Year" Source: AT&T Forms 43-02. Note: 47 CFR §32.2232(c) defines Optical Circuit Equipment as including "the original cost of optical circuit equipment," but at 47 CFR §32.2232(d) provides that "Circuit equipment that converts electronic signals to optical signals or optical signals to electronic signals shall be categorized as electronic" – shall be assigned to												

subaccount 2232.1–Electronic Circuit Equipment.

Although it would seem that the bulk of AT&T's investment in circuit equipment has been on the electronic, rather than optical side, as noted in Table 7.10 above, while 47 CFR §32.2232(c) defines Optical Circuit Equipment as including "the original cost of optical circuit equipment," at 47 CFR §32.2232(d), the rule provides that "Circuit equipment that converts electronic signals to optical signals or optical signals to electronic signals shall be categorized as electronic -- shall



be assigned to subaccount 2232.1–Electronic Circuit Equipment." Given that AT&T has been engaged in a major fiber optic upgrade both in feeder and in many distribution routes, it is highly likely that the bulk of Subacount 2232.2 gross additions have involved circuit equipment that converts electronic signals to optical signals or optical signals to electronic signals. And although this equipment is undoubtedly being used by AT&T to provide circuit-switched legacy POTS-type services, the drivers for these upgrades has clearly been the company's pursuit of nonregulated broadband and other advanced services markets.

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Those capital investments that AT&T has been making in its California ILEC have, for the most part, not been directed at legacy basic voice services.

Table 7.7 above showed that AT&T California has been steadily disinvesting in its local network. Between retirements and annual depreciation accruals, there are more assets being written off and depreciated than are being acquired. Depreciation is an operating expense, but since it does not involve any immediate cash outlay (as is the case for most other types of operating expenses), depreciation provides, in effect, a source of cash that can be used for plant upgrades and replacements. Here, however, AT&T California's Gross Additions are consistently falling below its ongoing depreciation accruals.

It is also instructive to examine the pattern of Gross Additions over time so as to gain an understanding as to how AT&T California is allocating its investment dollars. Table 7.11 below provides an account-by-account breakdown of Gross Additions on an annual basis for each year 2010 through 2017. This table was compiled from data provided by AT&T California in response to DR-03A.<sup>154</sup> AT&T has been investing heavily in packet switching equipment (Account 2212.2) and in Electronic Circuit Equipment (Account 2232.1), which includes "[c]ircuit equipment that converts electronic signals to optical signals or optical signals to electronic signals" (47 CFR §32.2232(d)).



<sup>154.</sup> AT&T Response to DR-03A dated June 4, 2018 as corrected by AT&T on August 6, 2018. Note: These figures should, in principle, match the aggregate data included in AT&T California's annual ARMIS financial reports as filed with the CPUC. However, this is not the case. ETI has requested that AT&T provide an explanation for these discrepancies and/or a reconciliation, with corrections as required, but this has not been forthcoming.

				Tab	ole 7.11							
	AT&T CALIFORNIA GROSS PLANT ADDITIONS 2010-2017											
USOA Account	Account Name	2010	2011	2012	2013	2014	2015	2016	2017	2010-2017 TOTAL		
2111	Land	(2,538,341)	(518,080)	(118,192)	(2,885,028)	(3,314,850)	(158,627)	-	(613,234)	(10,146,351)		
2112	Motor vehicles.	49,247,216	46,921,383	37,356,751	38,829,956	49,926,061	3,577,385	7,920,034	6,952,213	240,731,001		
2114	Tools and other work equipment.	8,165,048	16,436,823	15,679,525	9,173,516	79,365,263	2,205,574	8,293,399	8,845,773	148,164,920		
2121	Buildings	71,604,672	62,441,593	118,540,252	58,087,734	46,731,078	36,132,542	57,168,436	51,108,828	501,815,135		
2122	Furniture	11,046	326,033	55,661	43,402	-	-	6,587	-	442,729		
2123	Office Equipment	24,556	1,674,674	7,950	6,385	-	-	15,120	16,476	1,745,160		
2124	General purpose computers	16,924	33,892,852	5,980,044	2,040,763	12,064,222	15,919	55,677	20,604	54,087,005		
2211	Non-digital switching	2	(2)	297,250	96,206	1,405,115	575,148	230,852	986,352	3,590,922		
2212.1	Digital electronic switching-Circuit	(1,734,239,186)	(30,299,513)	73,836,801	98,505,731	67,362,754	28,121,861	56,541,879	42,222,688	(1,397,946,985)		
2212.2	Digital electronic switching-Packet	1,892,119,978	653,885,242	68,204,785	63,315,394	1,093,039,230	25,606,526	15,592,923	9,749,126	3,821,513,204		
2220	Operator systems	3,238	(6,007)	(34,376)	29,290	5,463	(255)	-	1,755	(892)		
2231	Radio systems	5,393,373	2,956,933	1,290,365	1,845,227	6,587,062	6,553,112	1,200,480	5,732,361	31,558,913		
2232.1	Circuit equipment-Electronic	389,250,317	1,411,196,409	264,377,773	123,738,967	2,650,390,029	65,917,874	53,467,124	89,166,762	5,047,505,254		
2232.2	Circuit equipment-Optical	-	-	-	-	21,001	28,676	1,633,150	5,069,052	6,751,879		
2341	Large private branch exchanges	9,872	9,395,811	-	-	-	-	-	-	9,405,683		
2351	Public Telephone Terminal Equipm	53,273	463	-	-	-	-	-	-	53,736		
2362	Other terminal equipment.	139,136,140	113,805,652	73,034,306	126,278,316	172,516,234	123,563,541	71,595,638	95,410,934	915,340,761		
2411	Poles	38,822,555	34,101,733	48,430,246	45,339,269	61,740,475	70,398,564	65,884,220	68,533,501	433,250,563		
2421	Aerial cable	144,116,584	99,009,095	76,923,457	(92,170,261)	247,261,983	62,670,675	123,681,905	228,004,789	889,498,227		
2422	Underground cable	183,592,878	180,170,273	144,455,015	(370,077,538)	793,599,097	168,959,172	206,625,165	264,763,347	1,572,087,409		
2423	Buried cable	56,837,855	58,007,913	39,272,854	(88,493,982)	145,566,927	30,988,221	53,592,760	68,432,700	364,205,247		
2424	Submarine & deep sea cable	345	14,252	-	-	-	-	-	-	14,598		
2426	Intra-building network	102,015	213,607	67,540	153,401	4,792,383	2,681,705	1,554,748	7,829,891	17,395,290		
2441	Conduit systems	70,702,722	61,618,454	43,079,413	(15,353,433)	174,660,293	76,275,071	85,780,478	135,008,857	631,771,854		
2682	Leasehold improvements	308,700	22,362,107	745,871	8,023,873	12,713,779	2,736,165	6,306,037	2,196,669	55,393,201		
2690	Intangibles	5,859,599	51,959,553	21,147,118	12,735,633	7,402,340	939,048	6,423,667	1,283,005	107,749,962		
TOTAL		1,318,601,379	2,829,567,253	1,032,630,408	19,262,820	5,623,835,939	707,787,897	823,570,281	1,090,722,448	13,445,978,425		
Source: A	T&T Response to DR-03A, Attachment 1,	as corrected Novem	nber 1, 2018.									



#### Investments at individual wire centers

AT&T was asked to, and did, provide certain investment- and asset-related data at the individual wire center level. This included Gross Additions (by account), Retirements, and Operating Expenses including annual depreciation charges. Wire centers vary in size from a few hundred to tens of thousands of access lines. Thus, in order to compare AT&T's investment practices across all of its wire centers, we constructed two different index values in the form of "Gross Additions per Access Line" by dividing the total Gross Additions for the wire center by the number of circuit-switched exchange access lines in service. However, as we have previously noted, AT&T California experienced a close-to 70% drop-off in demand for POTS-type services over the 2010-2017 period, which raised the question as to which POTS line count should be utilized for this purpose. In the end, ETI developed two investment indices, as follows:

- Gross Additions per average number of circuit-switched access lines over the full 2010-2017 period, and
- (2) Gross Additions per circuit-switched access line based upon December 2017 end-of-period line counts.

In the first approach, we are comparing total Gross Additions made over the full 8-year period with the average number of lines in service over that same 8-year period. But since investments in plant are typically driven by expectations of *future* demand, the second approach provides for the possibility that AT&T California had scaled its plant acquisitions to conform to the anticipated fall-off in POTS demand over the period of time that the new plant would remain in service.

There is, as it turns out, an extraordinarily wide variation in the per-access line investment across the full scope of AT&T California's 615 wire centers, ranging from less than \$200 to more than \$100,000 per average access line. Based upon end-of-period (December 2017) access lines in service, the per-access line Gross Additions ranged between \$296 and nearly \$200,000. The average amount of Gross Additions per access line, based upon average lines in service over the full 8-year period, was \$1,877; using end-of period (December 2017) access line in service, the average per-line Gross Addition was \$3,971. Tables 7.12 and 7.13 below provide the total and per-access line Gross Additions made of the full 8-year period based upon average access lines in service, for the 30 wire centers with the lowest per-access line expenditure and the 30 wire centers with the highest per-access line expenditure, respectively.



Table 7.12											
GROSS ADDITIONS PER ACCESS LINF IN SERVICE											
30 WIRE CENTERS WITH THE LOWEST PER-LINE EXPENDITURES											
			Average		20						
			Access	Average							
		Gross	Lines in	Gross							
		Additions	Service	Addition per	Broadband						
Wire Center	CLLI	2010-2017	2010-2017	Access Line	Available						
SEQUOIA PACIFIC STATE	SCRMCALR	2,797	12,987	0	NO						
BLAIRSDEN	BLRSCA12	297,360	1,624	183	NO						
LOYALTON	LLTNCA11	236,701	762	311	YES						
CAMP NELSON	CMNLCA11	354,354	806	440	NO						
FOLSOM BLUE RAVINE	FLSMCA14	7,223,597	27,916	259	YES						
MORAGA	MORGCA12	1,179,413	3,894	303	YES						
DELREY	DLRYCA11	1,005,576	3,179	316	YES						
BRADLEY	BRDLCA9	342,621	745	460	NO						
WAWANA	WANACA11	185,249	358	518	YES						
LAGRANDE DPEDRO	LGRNCA12	734,777	1,282	573	YES						
SF LARKIN-STEINER	SNFCCA12	19,176,342	43,321	443	YES						
PINE MOUNTAIN	LEBCCA12	711,642	1,628	437	NO						
SIERRA CITY	SRCYCA11	375,931	459	819	YES						
SHERMAN OAKS	SHOKCA1	13,485,002	29,707	454	YES						
CHALLANGE	CHLNCA11	1,065,113	1,357	785	NO						
ALHAMBRA	ALHBCA1	9,344,801	21,836	428	YES						
OROVILLE EAST	ORVLCA12	1,539,298	2,988	515	YES						
SOUTH TAHOE MEYERS APACHE	STAHCA13	855,250	2,264	378	YES						
	CRMLCA11	12,245,635	26.395	464	YES						
CALABASAS		,0,000									
LOS VIRGENES	CLBSCA5	1,143,279	2,377	481	YES						
ARNOLD	ARNLCA11	2,223,061	4,276	520	YES						
HYDESVILLE	HYVLCA11	284,138	475	598	NO						
BANGOR	BNGRCA11	346,087	492	704	NO						
NORTH SAN JUAN	NSJNCA11	526,914	782	674	YES						
TWAIN HARTE	TWHRCA11	1,843,592	3,725	495	YES						
MOSS BEACH	MSBHCA11	954,431	1,994	479	YES						
STINSON BEACH	STBHCA11	1,327,529	1,709	777	YES						
VALLEY SPRINGS	VYSPCA11	1,376,163	2,263	608	YES						
MADISON 2MO	LSANCA2	10,823,579	17,381	623	YES						
BAYWOOD PARK	BYPKCA11	1,267,857	3,083	411	YES						
Source: AT&T DR-03A, AT&T F	orms 43-02, AT&T 0	O-133C Trouble Re	port submissions	<u></u>							



Table 7 13											
AT&T CALIFORNIA											
GROSS ADDITIONS PER ACCESS LINE IN SERVICE											
30 WIRE CENTERS WITH THE HIGHEST PER-LINE EXPENDITURES											
			Average								
		<b>C</b> == = = =	Access	Average							
		Additions 2010-	Lines in Service	Addition per	Broadband						
Wire Center	CLLI	2017	2010-2017	Access Line	Available						
LA CANADA OAK GROVE	LACNCA11	2,827,328	23	125,080	NO						
PARKWAY	SNRFCA11	700,195,048	6,956	100,665	YES						
MOUNTAIN PASS	MTPSCA11	1,022,910	22	46,125	NO						
BAKER	BAKRCA11	5,884,897	210	28,021	NO						
DUNNIGAN	DNGNCA12	4,827,752	321	15,026	YES						
BIGSUR	BGSRCA11	15,049,141	542	27,749	NO						
BISHOP RANCH	BSRNCA70	51,540,470	3,193	16,140	YES						
BISHOP RANCH	BSRNCA70	51,540,470	3,193	16,140	YES						
COYOTE WELLS	CYWLCA11	1,713,308	103	16,555	YES						
ANNAPOLIS	ANNPCA11	2,116,418	109	19,372	NO						
TUSTIN70	TUSTCA70	14,708,511	1,135	12,954	YES						
PLEASANTON HACIENDA	PLTNCA13	34,984,231	3,069	11,400	YES						
COBB MOUNTAIN	CBMTCA11	6,141,376	954	6,435	YES						
GRENADA	GRNDCA13	1,508,864	211	7,153	YES						
MATHILDA SUNNEYVALE	SNVACA11	30,254,521	3,931	7,697	YES						
SAN LUCAS	SNLCCA11	724,841	80	9,053	NO						
BEALE	BEALCA11	1,259,963	147	8,586	YES						
SEQUOIA ASH MTN	ASMTCA11	1,198,654	114	10,536	NO						
PASKENTA	PSKNCA11	1,470,318	134	11,008	NO						
CROWS LANDING	CWLDCA12	1,405,446	157	8,952	YES						
SUISUN CITY	SUISCA11	5,115,871	834	6,131	YES						
IRVINE AIRPORT	IRVNCA11	82,473,787	11,111	7,423	YES						
GAZELLE	GZLLCA11	543,557	89	6,121	NO						
STANFORD RANCH	RCKLCA01	17,134,350	3,454	4,961	YES						
MOJAVE	MOJVCA01	7,956,916	1,219	6,527	YES						
SANTA CLARA											
SPACE PARK	SNTCCA01	62,047,037	9,010	6,887	YES						
SAN JOSE BAILEY	SNJSCA22	1,806,943	238	7,582	NO						
NINLAND BOMBAY BEACH	NILDCA12	1,040,630	224	4,642	NO						
LINCOLN	LNCLCA11	10,560,824	2,264	4,666	YES						
HOPLAND	HPLDCA12	2,340,898	401	5,833	YES						
Source: AT&T DR-03A, AT&T For	rms 43-02, AT&T GC	0-133C Trouble Repo	ort submissions								

Table 7.14 provides details on Gross Additions for all AT&T California wire centers.



Table 7.14										
		ΔΤΩΤ ΟΔΙ								
(		TIONS PER A		E IN SER	/ICE					
				C*****		Crees				
			Average	Adds per	Access	Adds per				
		Total Gross	Access	Avg	Lines	Dec 2017				
		Additions	Lines	Access	Dec	Access	Broadband			
Wire Center	CLLI	2010-2017	2010-2017	Line	2017	Line	Available			
ACTON	ACINCA11	2,827,328	1,665	1,698	842	3,358	YES			
AGUURA	AGORCA11	700,195,048	13,049	53,657	5,988	116,933	YES			
	AGDLCATT	1,022,910	955	1,072	530	1,930	YES			
	ALMDCA11	5,884,897	14,981	393	7,291	807	YES			
ALBANY SOLANO	ALBYCA11	4,827,752	15,989	302	7,491	644	YES			
ALHAMBRA	ALHBCA01	15,049,141	21,836	689	10,497	1,434	YES			
ALLEGHANEY	ALGHCA11	51,540,470	54	962,624	50	1,030,809	NO			
ALPINE	ALPICA12	51,540,470	3,283	15,699	1,843	27,966	YES			
ALTA DUTCH FLATS	DIFLCA11	1,713,308	862	1,989	602	2,846	YES			
ANAHEIM CYPRESS	ANHMCA11	2,116,418	22,820	93	9,327	227	YES			
	ANHMCA12	14,708,511	4,317	3,407	2,083	7,061	YES			
	ANHMCA01	34,984,231	22,843	1,531	9,433	3,709	YES			
ANDERSON	ARSNCA11	6,141,376	4,378	1,403	2,099	2,926	YES			
ANGELS CAMP	ANCMCA01	1,508,864	1,858	812	993	1,520	YES			
ANGWIN	ANGWCA11	30,254,521	1,221	24,786	653	46,332	YES			
ANHM HILLS	ANHMCA1/	724,841	2,736	265	976	743	YES			
ANNAPOLIS	ANNPCA11	1,259,963	109	11,533	75	16,800	NO			
ANTIOCH	ANTCCA11	1,198,654	13,078	92	5,883	204	YES			
APTOS	APISCA12	1,470,318	7,098	207	3,315	444	YES			
ARCADIA	ARCDCA11	1,405,446	12,638	111	5,846	240	YES			
ARCATA	ARCTCA11	5,115,871	4,273	1,197	2,070	2,471	YES			
ARLINGION	ARINCA11	82,473,787	18,387	4,485	7,133	11,562	YES			
ARNOLD	ARNLCA11	543,557	4,276	127	2,363	230	YES			
AROMAS	ARMSCA11	17,134,350	1,064	16,111	510	33,597	YES			
ARROYO GRANDE	ARGRCA12	7,956,916	10,132	785	4,598	1,731	YES			
ARVIN	ARVNCA11	62,047,037	2,405	25,800	909	68,259	YES			
ATASCADERO	ATSCCA11	1,806,943	6,095	296	2,769	653	YES			
ATWATER	ATWRCA12	1,040,630	5,663	184	2,236	465	YES			
AUBURN MAIN	AUBNCA01	10,560,824	12,603	838	6,678	1,581	YES			
AUBURN PLACER HILLS	AUBNCA11	2,340,898	3,280	714	1,731	1,352	YES			
AVENAL	AVNLCA12	20,778,835	1,470	14,134	524	39,654	YES			
AVILA BEACH	AVBHCA11	8,249,586	688	11,986	369	22,357	YES			
BAKER	BAKRCA11	52,564,837	210	250,284	140	375,463	NO			
BAKERSFIELD COLUMBUS	BKFDCA13	64,461,466	6,593	9,777	2,802	23,006	YES			
BAKERSFIELD EMPIRE	BKFDCA11	5,342,312	3,698	1,445	1,382	3,866	YES			
BAKERSFIELD MAIN FAIRVIEW	/ BKFDCA12	25,922,878	16,058	1,614	7,352	3,526	YES			
BAKERSFIELD METTLER	BKFDCA15	3,652,559	401	9,115	327	11,170	NO			
BAKERSFIELD NOMAD	BKFDCA19	1,091,596	5,457	200	2,330	468	YES			
BAKERSFIELD TEMPLE	BKFDCA14	952,308	20,800	46	8,210	116	YES			
BAKERSFIELD WEST ROSEDA	L BKFDCA17	599,638	9,984	60	3,952	152	YES			
BALBOA	BALBCA01	3,109,819	6,453	482	3,166	982	YES			
BANGOR	BNGRCA11	19,575,843	492	39,810	361	54,227	NO			
BAYWOOD PARK	BYPKCA11	58,202,774	3,083	18,880	1,130	51,507	YES			
BEALE	BEALCA11	54,341,407	147	370,299	87	624,614	YES			
BEAR VALLEY	BVLYCA11	3.086.103	727	4.244	481	6.416	YES			



		Table 7.14 (p	age 2 of 13	)			
Wire Center	CI I I	Total Gross Additions 2010-2017	Average Access Lines 2010-2017	Gross Adds per Avg Access	Access Lines Dec 2017	Gross Adds per Dec 2017 Access	Broadband Available
BEAR VILLY SPRING	BVSPCA11	18 763 158	1 531	12 259	447	41 976	YES
BELL	BELLCA11	912 426	8 911	102	3 205	285	YES
	BNI MCA11	14 831 651	1 354	10 952	676	21 940	YES
BENICIA	BNCICA11	40 159 643	5 088	7 892	2 283	17 591	YES
BERKELEY BANCROFT	BKI YCA01	6 284 934	18 765	335	9 863	637	YES
BETHELISLAND	BTISCA11	2 475 807	750	3 302	313	7 910	YES
BEVERLY HILLS	BVHLCA01	15,600,555	30,180	517	18.609	838	YES
BIG SUR	BGSRCA11	8,543,766	542	15.754	407	20,992	NO
BIGGS	BGGSCA11	1,153,614	603	1,914	284	4.062	YES
BISHOP RANCH	BSRNCA70	920.965	3.193	288	1.658	555	YES
BISHOP RANCH	BSRNCA70	1.181.287	3,193	370	1.658	712	YES
BLAIRSDEN	BLRSCA12	974.532	1.624	600	1.006	969	NO
BLUE LAKE	BLLKCA11	40.180.686	460	87.296	266	151.055	NO
BODEGA BAY	BDBACA11	4,293,409	788	5,449	403	10,654	YES
BOONVILLE	BNVLCA11	54,891,461	1,151	47,676	740	74,178	YES
BORREGO SPRINGS	BRSPCA11	2,533,336	1,443	1,756	801	3,163	YES
BOULDER CREEK	BLCKCA11	1,395,480	2,200	634	1,191	1,172	YES
BRADLEY	BRDLCA90	1,143,666	745	1,535	528	2,166	NO
BRAWLEY	BRWLCA11	891,413	4,882	183	2,089	427	YES
BREA	BREACA12	599,328	8,150	74	3,612	166	YES
BRENTWOOD	BRWDCA12	1,029,898	9,899	104	4,343	237	YES
BRIDGEVILLE	BGVLCA11	10,106,881	231	43,767	188	53,760	NO
BRISTOL	SNANCA11	53,362,083	25,227	2,115	11,730	4,549	YES
BROCKWAY	BCWYCA11	75,242,596	2,381	31,598	1,066	70,584	YES
BROCKWAY	BCWYCA11	8,343,137	2,381	3,504	1,066	7,827	YES
BUENA PARK	BNPKCA11	56,536,844	12,007	4,709	5,203	10,866	YES
BURBANK PALM	BRBNCA11	792,062	24,366	33	11,552	69	YES
BURBANK THORNTON	BRBNCA13	49,237,936	1,373	35,869	819	60,120	YES
BURLINGAME	BRLNCA01	485,687	17,071	28	9,056	54	YES
BURRELL	BURLCA11	1,207,697	169	7,156	100	12,077	YES
BUSH	SNANCA01	9,734,418	22,424	434	9,997	974	YES
BUTTE CITY	BTCYCA11	46,112,503	161	286,469	121	381,095	NO
CALABASAS LOS VIRGENES	CLBSCA50	28,902,996	2,377	12,159	1,220	23,691	YES
CALABASAS PARK SORRENTO	CLBSCA11	17,184,726	8,389	2,048	4,440	3,870	YES
CALEXICO	CLXCCA12	12,816,649	6,121	2,094	2,285	5,609	YES
CALISTOGA	CLSTCA11	1,145,333	2,427	472	1,245	920	YES
CALPATRIA	CLPTCA11	1,230,142	647	1,901	293	4,198	YES
	CMBACA11	14,257,101	3,076	4,635	1,629	8,752	YES
	CMINECATT	98,502,068	806	122,266	730	134,934	NO
	CMPDCAUI	1,954,368	213	9,193	114 500	17,144	YES
		0,110,275	1,110	5,510	538	11,309	TES
		4,005,583	330	12,118	245 15 940	10,594	IES VES
		2,400,409	33,/8U	/4	10,010	15/	IES VES
	CRESCAIL	2,031,005	0,312	322	∠,004 4 4 4 4	/00 570	TEO VEO
CARLODAD LA CUOTA	CRESCAIZ	2,314,290	9,130	200	4,411	570	IEO VEO
		1,479,107	20,390	0C 17 650	1 160	11Z 21.051	
		37,120,192	2,103	000,11 1 697	1,102 0,026	31,901	TEO VEQ
CANNOL SUNNI VALE	SINVAGAUL	32,002,130	19,312	1,007	9,020	J,0∠ I	160



Table 7.14 (page 3 of 13)										
		Total Gross Additions	Average Access Lines	Gross Adds per Avg Access	Access Lines Dec	Gross Adds per Dec 2017 Access	Broadband			
Wire Center	CLLI	2010-2017	2010-2017	Line	2017	Line	Available			
CARUTHERS	CRTHCA11	24,195,922	948	25,533	427	56,665	YES			
CASTAIC	CSTCCA11	54,648,483	7,696	7,101	4,054	13,480	YES			
CASTROVILLE	CSVLCA11	2,573,671	2,465	1,044	1,296	1,986	YES			
CAYUCOS	CYCSCA11	8,618,999	1,296	6,648	617	13,969	YES			
CENTRAL VALLEY	CNVYCA11	83,661,390	3,555	23,534	1,794	46,634	YES			
CENTURY CITY	WLANCA01	3,532,260	11,686	302	6,567	538	YES			
CHALLANGE	CHLNCA11	54,787,249	1,357	40,381	1,204	45,504	NO			
CHICO MAIN	CHICCA01	50,422,018	24,345	2,071	12,112	4,163	YES			
CHOWCHILLA	CHWCCA11	7,720,187	2,616	2,951	1,133	6,814	YES			
CHUALAR	CHLRCA11	21,931,282	307	71,367	173	126,770	YES			
CHULA VISTA APACHE	CHVSCA12	51,178,307	6,131	8,348	2,638	19,400	YES			
CHULA VISTA THIRD AVENUE	CHVSCA11	18,995,041	10,874	1,747	4,670	4,067	YES			
CLAYTON	CYTNCA11	4,354,637	3,558	1,224	1,710	2,547	YES			
CLEAR LAKE OAKS	CLOKCA11	533,919	1,354	394	654	816	YES			
CLOVERDALE	CODLCA11	16,855,434	2,139	7,879	994	16,957	YES			
CLOVIS	CLVSCA11	14,976,400	23,980	625	9,943	1,506	YES			
COALINGA	CLNGCA01	10,520,377	2,305	4,564	940	11,192	YES			
COBB MOUNTAIN	CBMTCA11	15,367,389	954	16,103	369	41,646	YES			
COLMA DALY CITY	COLACA01	53,799,687	14,027	3,835	6,767	7,950	YES			
COLTON	COTNCA11	84,209,537	8,536	9,866	3,767	22,355	YES			
COMPTON	CMTNCA01	4,019,935	27,254	147	11,646	345	YES			
CONCORD	CNCRCA01	1,476,325	21,505	69	10,486	141	YES			
CORDELIA	CORDCA12	837,173	3,097	270	1,553	539	YES			
CORNING	CRNGCA12	37,012,636	2,953	12,533	1,409	26,269	YES			
CORONA	CORNCA11	45,488,452	33,916	1,341	12,892	3,528	YES			
CORONA DEL MAR	CRDMCA11	1,131,049	12,895	88	7,314	155	YES			
CORONADO	CRNDCA11	63,492,461	4,071	15,598	1,996	31,810	YES			
COSTA MESA	CSMSCA11	15,450,816	16,224	952	7,016	2,202	YES			
COSTA MESA	CSMSCA11	13,820,290	16,224	852	7,016	1,970	YES			
COTATI	CTTICA12	2,808,110	5,240	536	2,282	1,231	YES			
COTTONWOOD	CTWDCA11	3,063,097	3,979	770	2,418	1,267	YES			
COULTERVILLE	CTVLCA11	1,668,606	852	1,960	722	2,311	NO			
COYOTE WELLS	CYWLCA11	627,602	103	6,064	57	11,011	YES			
CROCKETT	CRCTCA02	48,361,377	692	69,864	318	152,080	YES			
CROWS LANDING	CWLDCA12	1,732,581	157	11,036	106	16,345	YES			
	CLCYCA11	41,196,976	19,759	2,085	9,355	4,404	YES			
DANVILLE MAIN 12	DAVLCA12	1,884,269	12,609	149	5,966	316	YES			
DANVILLE TASSAJARA 13	DAVLCA13	1,131,807	6,364	178	2,747	412	YES			
DAVIS	DAVSCA11	2,494,811	10,913	229	4,815	518	YES			
DEL MAR	DLMRCA12	26,506,947	13,397	1,979	6,377	4,157	YES			
	DERICATI	20,295,011	3,179	6,383	1,686	12,037	YES			
	DELNCA11	34,827,767	6,055	5,752	2,3/3	14,677	YES			
DINOBA	DINBCA01	11,104,061	3,827	2,901	1,590	6,984	YES			
	DIXNCA11	10,959,605	3,868	2,833	1,590	6,893	YES			
	DWNVCA11	4,196,323	329	12,739	255	16,456	YES			
	DLZRCA11	/4,183,110	748	99,186	543	136,617	YES			
DUNNIGAN	DNGNCA12	47,159,309	321	146,780	128	368,432	YES			
DUNSMUIK	DINSMCA11	5,463,164	939	5,819	484	11,288	YES			

ECONOMICS AND TECHNOLOGY, INC.

Table 7.14 (page 4 of 13)										
Wire Center	CULI	Total Gross Additions 2010-2017	Average Access Lines 2010-2017	Gross Adds per Avg Access Line	Access Lines Dec 2017	Gross Adds per Dec 2017 Access Line	Broadband Available			
FARLIMART	ERI MCA11	7 949 220	1 148	6 927	406	19 579	YES			
EDGEWOOD N HIGHL	NHLDCA11	45.586.523	12,252	3,721	4.823	9,452	YES			
EDWARDS	EDWRCA01	64.180.688	244	262.598	140	458,433	YES			
EL CAJON	ELCJCA11	49.390.946	10.231	4.828	4.691	10.529	YES			
EL CENTRO	ELCNCA01	1,313,541	10,325	127	4,607	285	YES			
EL MONTE	ELMNCA01	4.643.846	24,912	186	11,463	405	YES			
EL PORTAL	YSMTCA12	24,949,571	419	59,485	321	77,725	YES			
EL SEGUNDO DOUGLAS	ELSGCA12	7.821.234	7.911	989	4.649	1.682	YES			
EL TORO	ELTRCA11	83.544.417	26.021	3.211	13.058	6.398	YES			
ELK	ELK CA11	31.011.147	291	106.472	223	139.063	NO			
ELK CREEK	EKCKCA11	31.011.147	164	188,948	111	279,380	NO			
ENCINITAS	ENCTCA12	1.006.022	12.379	81	5.427	185	YES			
ESCALON	ESCLCA11	43.446.821	2.448	17.749	1.096	39.641	YES			
ESCONDIDO	ESCNCA01	7.520.367	19.413	387	8.998	836	YES			
ESPARTO	ESPRCA11	43.557.040	675	64.547	295	147.651	YES			
EUCLID	GRGVCA01	43.328.248	20.368	2,127	8.212	5.276	YES			
EUREKA	EURKCA01	6.211.313	10.997	565	5.537	1.122	YES			
EXPORT OILDALE	OLDLCA11	42.372.171	7.547	5.614	3,490	12,141	YES			
FAIR OAKS	FROKCA11	12,793,156	19.890	643	8,796	1.454	YES			
FAIRFIELD	FRFDCA01	20.906.322	13.691	1.527	6.009	3.479	YES			
FALLBROOK	FLBKCA12	13.252.972	9.134	1.451	4.165	3.182	YES			
FARMERSVILLE	FRVLCA11	47.236.884	1.192	39.644	493	95.815	YES			
FELTON	FETNCA11	34.183.533	2.229	15.338	1.156	29,571	YES			
FILLMORE	FLMRCA11	39.911.051	2.272	17.568	931	42.869	YES			
FIREBAUGH	FRBHCA11	14.053.908	1.365	10.298	687	20.457	YES			
FIVE POINTS	FVPNCA11	20,953,602	244	85,875	179	117,059	NO			
FOLSOM BLUE RAVINE	FLSMCA14	10,800,708	27,916	387	13,639	792	YES			
FOLSOM EL DORADO HILLS	FLSMCA13	10,800,708	6,921	1,560	3,078	3,509	YES			
FOLSOM NIMBUS	FLSMCA12	23,065,686	4,672	4,937	2,151	10,723	YES			
FONTANA	FNTACA11	25,337,498	19,626	1,291	6,994	3,623	YES			
FORESTVILLE	FSVLCA11	1,041,535	1,565	665	812	1,283	YES			
FORT BRAGG	FTBRCA02	57,248,425	5,898	9,707	3,563	16,067	YES			
FORTUNA	FTUNCA11	63,602,496	2,646	24,038	1,236	51,458	YES			
FRAZIER PARK	FZPKCA11	983,940	1,570	627	872	1,128	YES			
FREMONT ADAMS OLIVER 12	FRMTCA12	5,181,799	16,717	310	7,919	654	YES			
FREMONT MAIN 11	FRMTCA11	6,352,444	20,722	307	9,274	685	YES			
FRENCH GULCH	FRGLCA11	6,976,041	161	43,310	103	67,729	NO			
FRESNO BALDWIN	FRSNCA11	696,245	16,543	42	6,681	104	YES			
FRESNO CLINTON	FRSNCA12	2,711,386	11,802	230	4,994	543	YES			
FRESNO MAIN	FRSNCA01	547,555	19,462	28	9,133	60	YES			
FRESNO SIERRA	FRSNCA13	2,945,286	16,736	176	7,600	388	YES			
FRESNO WEST HIGHWAY CITY	FRSNCA14	27,181,777	9,487	2,865	3,911	6,950	YES			
FRESNO WOODWARD	FRSNCA15	1,346,783	3,211	419	1,281	1,051	YES			
FRONTIER	WSCRCA11	20,710,323	8,986	2,305	4,185	4,949	YES			
FULLERTON	FUTNCA01	27,974,845	20,743	1,349	9,403	2,975	YES			
FURNACE CREEK	FRCKCA11	36,479,158	204	178,455	146	249,857	NO			
GALT	GALTCA11	27,684,391	4,275	6,475	1,736	15,947	YES			
GARDENA	GRDNCA01	29,834,973	29,232	1,021	14,190	2,103	YES			



	Table 7.14 (page 5 of 13)									
Wire Center	CLLI	Total Gross Additions 2010-2017	Average Access Lines 2010-2017	Gross Adds per Avg Access Line	Access Lines Dec 2017	Gross Adds per Dec 2017 Access Line	Broadband Available			
GARNET	PCBHCA01	39,194,244	11.231	3.490	4.955	7.910	YES			
GAZELLE	GZLLCA11	881,982	89	9,932	45	19,600	NO			
GEORGETOWN	GRTWCA11	21,435,891	2,160	9,925	1,486	14,425	YES			
GERBER	GRBRCA11	39,487,510	536	73,692	219	180,308	YES			
GEYERSVILLE	GYVLCA11	2,188,169	541	4,042	328	6,671	YES			
GLENDALE	GLDLCA11	19,688,219	35,695	552	17,247	1,142	YES			
GLENVIEW	SLNSCA12	9,544,679	1,188	8,036	642	14,867	YES			
GONZALES	GNZLCA11	9,943,906	1,486	6,690	687	14,474	YES			
GOSHEN	GSHNCA11	34,528,417	1,297	26,621	813	42,470	YES			
GRASS VALLEY	GRVYCA01	60,480,621	15,239	3,969	8,934	6,770	YES			
GREEN FIELD	GNFDCA11	19,926,447	2,353	8,467	1,078	18,485	YES			
GRENADA	GRNDCA13	19,571,518	211	92,788	91	215,072	YES			
GRIDLEY	GRDLCA11	19,809,982	2,260	8,765	964	20,550	YES			
GROVELAND	GVLDCA11	12,059,068	3,033	3,976	2,142	5,630	YES			
GUALALA	GULLCA11	24,427,883	1,527	15,996	1,142	21,390	NO			
GUERNEVILLE	GUVLCA11	1,377,668	1,475	934	779	1,769	YES			
GUSTINE	GUSTCA11	11,811,906	1,501	7,869	694	17,020	YES			
GYPSUM CANYON	YRLNCA12	13,256,339	1,706	7,770	692	19,157	YES			
HALF MOON BAY	HMBACA12	16,978,654	5,091	3,335	2,686	6,321	YES			
HAMILTON CITY	HMCYCA11	1,170,754	421	2,784	170	6,887	YES			
HANFORD	HNFRCA01	9,534,354	10,525	906	4,454	2,141	YES			
HAWTHORNE	HWTHCA01	966,968	15,051	64	6,110	158	YES			
HAYWARD DEPOT	HYWRCA11	29,721,543	13,424	2,214	6,198	4,795	YES			
HAYWARD MAIN	HYWRCA01	1,689,112	20,264	83	9,134	185	YES			
HEALDSBURG	HLBGCA11	39,562,134	5,294	7,473	2,964	13,348	YES			
HERALD	HERLCA11	2,285,784	638	3,584	307	7,446	YES			
HERCULES PINOLE	HRCLCA11	915,484	7,162	128	3,133	292	YES			
HICKORY SALINAS	SLNSCA11	33,748,014	6,561	5,144	2,602	12,970	YES			
HIGHLAND	HGLDCA11	4,893,843	6,739	726	2,509	1,951	YES			
HOLLISTER	HLSTCA11	22,009,665	7,623	2,887	3,329	6,611	YES			
HOLLYWOOD	HLWDCA01	446,428	22,584	20	11,379	39	YES			
HOLTVILLE	HLVLCA11	16,006,710	1,431	11,187	551	29,050	YES			
HOMEWOOD	HMWDCA1 <sup>·</sup>	3,777,616	2,301	1,642	1,257	3,005	YES			
HOPLAND	HPLDCA12	16,840,522	401	41,966	228	73,862	YES			
HORNBLEND	PCBHCA11	14,184,513	1,530	9,271	663	21,394	YES			
HORNBROOK	HRBKCA11	33,597,367	404	83,102	294	114,277	NO			
HUGHSON	HGSNCA11	21,419,693	1,551	13,810	651	32,903	YES			
HUNTER	SLNSCA13	21,419,693	1,505	14,231	781	27,426	YES			
HUNTINGTON PARK	HNPKCA01	6,166,658	19,210	321	8,287	744	YES			
HURON	HURNCA11	3,593,779	889	4,044	344	10,447	YES			
HYDESVILLE	HYVLCA11	43,652,190	475	91,917	299	145,994	NO			
IGNACIO	IGNCCA12	52,744,471	4,129	12,773	1,813	29,092	YES			
	IMPRCA11	35,823,350	1,731	20,700	646	55,454	YES			
	IMBHCA11	6,370,644	5,323	1,197	2,392	2,663	YES			
INGLEWOOD	IGWDCA01	2,535,350	15,550	163	6,065	418	YES			
INGLEWOOD	IGWDCA01	25,321,898	15,550	1,628	6,065	4,175	YES			
	INVRCA11	34,994,518	691	50,675	484	72,303	YES			
IONE	IONECA11	1,237,891	1,842	672	963	1,285	YES			



	Table 7.14 (page 6 of 13)										
Wire Center	CULI	Total Gross Additions 2010-2017	Average Access Lines 2010-2017	Gross Adds per Avg Access Line	Access Lines Dec 2017	Gross Adds per Dec 2017 Access Line	Broadband Available				
IRVINE	IRVNCA01	1 249 128	11 251	111	5 461	229	YES				
	IRVNCA11	35 114 627	11 111	3 160	6 714	5 230	YES				
IVANHOE	IVNHCA11	36,282,216	1,131	32,090	540	67,189	YES				
JACKSON	JCSNCA01	20.995.346	2.856	7.352	1.675	12.535	YES				
JACUMBA	JCMBCA11	25.447.192	673	37.792	399	63,777	YES				
JAMESTOWN	JMTWCA11	19.208.448	1.631	11.775	922	20.833	YES				
JAMUL	JAML CA60	18,290,797	800	22.858	364	50,249	YES				
JULIAN	JULNCA12	9.500.327	1.770	5.366	1.042	9,117	YES				
KELSEYVILLE	KLVLCA12	8,477,589	2.378	3,565	1,248	6,793	YES				
KING CITY	KGCYCA11	20.019.004	2,905	6,891	1.547	12,941	YES				
KINGSBURG	KGBGCA11	4,776,973	2,989	1,598	1,255	3,806	YES				
KNIGHTS FERRY	KNEYCA11	1 712 258	255	6 721	151	11 339	NO				
KYBURZ	KYBRCA11	4 883 581	159	30 732	69	70 777	YES				
LA CANADA OAK GROVE	LACNCA11	25 502 396	23	########	14	1 821 600	NO				
LA CRESCENTA	LACRCA11	39 516 123	15 998	2 470	7 345	5 380	YES				
	LAHNCA11	3 595 989	690	5 215	418	8 603	YES				
		31 284 106	8 109	3 858	4 303	7 270	YES				
LAMESA	LAMSCA01	23 543 894	14 687	1 603	6 830	3 447	YES				
		9 060 156	5 282	1,000	2 602	3 482	YES				
	LGRNCA12	15 208 748	1 282	11 863	980	15 519	YES				
	LGNGCA12	34 773 548	8,377	4 151	4 051	8 584	YES				
	LKRRCA11	11 778 087	335	35 211	206	57 175	NO				
		8 555 929	1 437	5 956	527	16 235	YES				
	GRV/YCA11	4 450 238	3 672	1 212	2 1 1 9	2 100	YES				
		4 558 166	3 869	1 178	2,110	1 932	YES				
		43 672 402	4 112	10 621	2,000	21 4 1 9	YES				
LAMONT	LAMTCA11	1 097 454	2,398	458	2,000	1 232	YES				
	LRKSCA11	21 762 438	6 875	3 166	3 541	6 146	YES				
LATON	LATNCA11	19 227 684	496	38 762	221	87 003	YES				
	LGRDCA11	17 636 842	479	36 814	210	83,985	YES				
LEBEC	LEBCCA11	4 003 340	616	6 4 9 9	411	9 740	YES				
I FMORE MAIN	LEBCC/11	13 727 774	3 802	3 610	1 463	9,383	YES				
LEMORE WYMAN	LEMRCA12	30.913.002	246	125,742	.,	332,398	YES				
	LNVYCA11	11.050.105	678	16.303	371	29,785	YES				
LEWISTON	LSTNCA11	54,963,463	696	78,915	537	102,353	NO				
	I NCI CA11	24 836 559	2 264	10,973	976	25 447	YES				
	I TRKCA11	6 301 070	2 259	2 789	1 121	5 621	YES				
LIVE OAK	LVOKCA11	12,937,325	1,645	7.865	755	17,136	YES				
	I VMRCA11	23,968,208	14 186	1 690	7 186	3 335	YES				
LOCKEFORD	LCFRCA11	17,424,971	781	22,302	301	57,890	YES				
	LODICA01	16 147 260	14 550	1 110	6 549	2 466	YES				
	LOLTCA11	64 886	275	236	149	435	YES				
	LOMTCA11	27 715 640	15 110	1 834	6 713	4 129	YES				
LOOMIS		8 568 847	3 652	2 346	1 615	5 306	YES				
	SNRSCA11	2 359 730	7 300	2,070	2 981	792	YES				
		3 447 560	Q Q/1	3/7	5 01/	688	VES				
		8 15/ 07/	5/30	1 /00	2 / 11	2 282	YES				
LOS MOLINOS	LSMLCA11	1,625,458	<u>931</u>	1,746	413	3,936	YES				



		Table 7.14 (p	age 7 of 13	)			
Wire Center	CUL	Total Gross Additions 2010-2017	Average Access Lines 2010-2017	Gross Adds per Avg Access	Access Lines Dec 2017	Gross Adds per Dec 2017 Access	Broadband Available
		2 076 526	4 830	430	2 285	000	VES
		15 271 002	762	20 044	580	25 929	VES
		34 610 060	12 710	20,044	1 721	7 3 3 1	VES
		30 864 228	16 256	2,723	8 368	1,551	VES
		12 /03 352	26 242	2,452	11 573	4,704	VES
		3 175 069	20,242	150	9 <i>AAA</i>	336	VES
		2/ 73/ 701	18 520	1 3 3 6	9,444 8 / 35	2 032	VES
		24,734,731	18 /01	1,550	7 7 2 2	2,952	VES
		11 240 847	25 035	1 500	13 7/0	3 000	VES
		16 737 052	18 718	1,550	8 030	1 872	VES
		22 021 122	20 747	1 061	0,909 9 440	2,606	VES
		1 311 / 20	16 / 7/	262	6 772	2,000	VES
		4,311,429	10,474	202	7 2 2 4	102	VES
		5 002 216	11 538	134	6 151	813	VES
		12 107 081	25 758	1 638	11 700	3 604	VES
		42,137,001	20,750	0,000	/137	23 074	VES
		15 271 627	10.854	3,033 1 407	4.57	23,314	VES
		12 604 240	17 291	720	4,077	3,203	VES
		12,094,249	0.715	17	9,070 6,425	1,313	VES
		27 752 027	3,713	8 005	1 527	19 175	VES
	MPT7CA11	2 1 2 5 2 2 2	9.057	0,090	1,527	774	VES
		3,155,555	8 211	453	4,030	013	VES
		11 172 094	2 021	2 942	1 005	5 965	VES
		8 71/ 253	2 837	2,042	1,303	6 872	VES
		10.062.333	2,037	3 702	1,200	5 857	VES
MENDOCINO		2 /67 661	1 269	1 944	514	3,857 4 801	VES
		1 010 036	7 567	1,344	1 178	4,001	VES
MERCED		3 7/9 602	1/ 253	263	6 3/15	501	VES
MERCED	MRCDCA01	15 589 026	14,253	1 09/	6 3/15	2 457	VES
MERIDAN		34 673 235	264	131 1/7	172	2,407	NO
		8 756 318	204	3 8/1	1 035	201,509	VES
		21 024 080	2,200	2/37	1,000	1 824	VES
MILLBRAE	MI BRCA11	4 155 892	5 796	717	3 032	1 371	YES
MILEUTOL	MLPSCA11	3 236 387	13 480	240	6 461	501	YES
MIRANDA		520 473	541	963	323	1 611	YES
MISSION VIE IO	MSV/ICAAT	1 198 670	4 387	273	2 304	520	YES
MISSION VIE IO	MSV/ICAAT	607 726	4,007	139	2,004	264	YES
MODESTO DAVIS	MDSTCA52	2 937 673	19	155 125	2,004	163 204	NO
MODESTO KELLOG SOUTH CE	F MDSTCA03	19 331 377	7 650	2 527	3 142	6 153	YES
MODESTO KINGSWOOD CUR		7 654 518	3 360	2,027	1 300	5 471	YES
	MDSTCA02	4 972 059	30 761	162	13 262	375	YES
	MDSTCA05	14 994 288	2 277	6 585	752	19 939	YES
MOJAVE		20 518 212	1 210	16 830	673	30 /88	VES
		23 303 381	1,219	60 275	212	100 022	NO
	MTACCA11	26,000,004	1 0/2	31 621	Z 1 Z	60 207	VES
		6 661 251	000	7 /02 I	533	11 621	VEQ
MONTEREY	MTRVCA01	2 002 665	12 /50	1,400	6 602	212	VES
MOORPARK	MRPKCA12	3,526,865	6,254	564	2,870	1,229	YES



	Table 7.14 (page 8 of 13)									
Wire Center	CLU	Total Gross Additions 2010-2017	Average Access Lines 2010-2017	Gross Adds per Avg Access	Access Lines Dec 2017	Gross Adds per Dec 2017 Access	Broadband Available			
MORAGA	MORGCA1	11 410 591	3 894	2 931	1 993	5 725	YES			
MORO	SI NSCA14	22 559 472	2 754	8 192	1 448	15 580	YES			
	MRBACA11	30 106 396	3 026	9 951	1,440	24 637	VES			
		27 578 275	1 00/	13 831	0/2	29,007	VES			
MOUNT SHASTA	MTSHCA12	1 364 724	2 810	10,001	1 1/15	20,270 Q//	VES			
MOUNTAIN PASS	MTPSCA11	7 817 588	2,010	352 507	1,440	434 310	NO			
		2 283 640	18 370	12/	Q 013	253	VES			
MURPHYS		17 632 10/	1 805	9 767	080	17 828	VES			
NADA		2 012 016	18 801	107	0 003	223	VES			
NATIONAL CITY HIGHLAND		1 515 027	3 703	300	1 605	80/	VES			
		9 2/3 021	5 689	1 625	3 777	2 117	VES			
		3 0/0 380	2 155	1,025	1 000	2,747	VES			
NEWHALL		16 957 387	14 810	1,415	6 404	2,750	YES			
NEWMAN		3 829 861	1 655	2 314	644	5 947	YES			
		14 153 914	16 751	845	7 344	1 927	YES			
		1 317 573	32 032	/1	1/ 8/6	80	VES			
		16 381 983	302	× 1 1 786	280	58 507	NO			
NICE	NICECA11	247 436	1 229	201	572	433	YES			
		12 523 071	208	60 091	116	107 965	VES			
		2 361 008	200	7 515	118	20,000	VES			
		3 128 121	224	13 952	95	32 928	NO			
		9 / 69 625	227	3 402	1 222	7 7/9	VES			
NORMANDY		12 001 220	25,705	/82	11 107	1 089	VES			
NORTH NATOMAS	NSCRCA12	27 956 514	5 868	4 764	2 461	11 360	YES			
NORTH SAN JUAN	NS INCA11	7 035 137	782	9 001	537	13 101	YES			
NORTH STAR	TRUCCA12	34 476 237	1 200	28 736	696	49 535	YES			
NORTH YUBA	NYUBCA11	502 373	848	592	573	877	NO			
NORTHRIDGE	NORGCA11	1 056 050	26 850	39	12 509	84	YES			
		3 116 837	5 588	558	2,382	1.308	YES			
OAKLAND 45TH OLYMPICCENT		3 116 837	20,506	152	10.372	301	YES			
OAKLAND FRANKLIN	OKLDCA03	505 077	25,294	20	14 731	.34	YES			
	OKLDCA12	17 171 380	18 972	905	9 151	1 876	YES			
		3 323 220	12 610	264	5 814	572	YES			
	OKLDCA13	14 813 727	10,927	1 356	5 249	2 822	YES			
OAKLEY	OKLYCA11	3 765 349	3 367	1 118	1 324	2 844	YES			
OAKVIEW	OKVWCA11	8,601,730	1.849	4.653	739	11,640	YES			
OCCIDENTAL	OCDNCA11	1.334.629	1,254	1,064	779	1,713	NO			
OCEANSIDE MISSION	OCSDCA11	16.873.009	11.282	1.496	5.143	3.281	YES			
OJAI	OJAICA11	18,643,536	4,559	4.089	2.015	9,252	YES			
ORANGE CHAPMAN	ORNGCA11	11.504.831	17,781	647	8,236	1,397	YES			
ORANGE COVE	ORCVCA11	8,981,545	1.262	7.115	462	19.441	YES			
ORANGE OLIVE	ORNGCA13	10,194,130	14.089	724	6.032	1.690	YES			
ORANGE WEST	ORNGCA14	33,020,156	7.853	4,205	3.748	8.810	YES			
ORANGEVALE	ORVACA11	2,541,181	6.730	378	2,713	937	YES			
ORINDA	ORNDCA11	1.835.211	4.248	432	2,208	831	YES			
ORLAND	ORLDCA11	8.828.069	3.314	2.664	1.623	5,439	YES			
OROSI	ORSICA11	10,310,195	2,299	4,485	918	11.231	YES			
OROVILLE EAST	ORVLCA12	1,195,890	2,988	400	1,678	713	YES			



Table 7.14 (page 9 of 13)							
Wire Contor	CLU	Total Gross Additions	Average Access Lines	Gross Adds per Avg Access	Access Lines Dec 2017	Gross Adds per Dec 2017 Access	Broadband
		12 076 742	2010-2017	1 586	4 210	2 000	
	OTMSCA11	6 954 019	2 022	2 200	1 166	5,033	VES
	DCECCA11	25 140 474	2,023	3,300	2 570	7.042	VES
		25,140,474	12 697	2,046	5,070	1,042	VES
		25,901,705	12,007	2,040	1 001	4,991	TES VES
		10 046 320	21 202	2,107	11 9/5	0,005	VES
		10,940,320	21,290	514	11,045	924	TES
	PLALCA 12	4,027,303	0,000	233	4,493 2 007	1,030	TES
	PRDSCATT	0,200,900	1,100	007	3,001 1 455	1,017	TES
	PRDSCA12	23,140,070	2,112	0,349	1,400 5 264	15,900	TES
		1,409,710	13,747	100	0,004	270	TES
		13,734,221	0,900	1,977	3,312	3,910	TES VES
	PRERCATI	000,438	1,521	438	599	1,113	YES
	PSDNCA12	10,008,498	16,339	983	0,029	2,424	YES
PASADENA MI WILSON GREE		42,963,038	27,550	1,559	14,235	3,018	TES
PASKENTA	PSKNCATT	1,602,213	134	11,995	108	14,835	NO
PASO ROBLES	PSRBCAUT	3,797,433	11,421	333	5,912	642	YES
	PALACA11	22,552,524	1,487	15,162	907	24,865	YES
PEDLEY	PDLYCA11	1,427,689	7,042	203	2,940	486	YES
PEPPERWOOD	PPWDCA11	5,569,702	115	48,402	82	67,923	NO
PESCADERO	PSCDCA11	1,227,332	816	1,504	604	2,032	YES
PETALUMA	PILMCA01	1,376,272	11,844	116	5,851	235	YES
PINE MOUNTAIN	LEBCCA12	11,345,799	1,628	6,970	849	13,364	NO
PINE VALLEY	PNVYCA11	1,829,104	666	2,746	301	6,077	YES
PINECREST	PNCRCA11	987,658	1,213	814	1,000	988	NO
PIRU	PIRUCA11	19,883,781	352	56,451	160	124,274	YES
PISMO BEACH	PSBHCA11	2,441,001	2,196	1,111	913	2,674	YES
PITTSBURG BAY POINT WILLC	WPSBGCA11	20,098,102	3,183	6,314	1,251	16,066	YES
PITTSBURG MAIN	PSBGCA01	2,540,136	6,407	396	2,849	892	YES
PIXLEY	PXLYCA11	17,164,773	754	22,767	327	52,492	YES
PLACENTIA	PLCNCA11	3,796,244	14,918	254	6,473	586	YES
PLACERVILLE MAIN	PLVLCA11	20,146,153	13,970	1,442	8,045	2,504	YES
PLACERVILLE NIAGARA	PLVLCA12	11,959,824	4,437	2,695	2,575	4,645	YES
PLANADA	PLNDCA11	762,899	792	963	321	2,377	YES
PLEASANT GROVE	PLGVCA12	26,775,203	316	84,603	183	146,313	YES
PLEASANTON HACIENDA	PLTNCA13	22,318,427	3,069	7,273	1,833	12,176	YES
PLEASANTON MAIN HOPYARD	PLTNCA12	1,391,140	9,955	140	4,679	297	YES
PLYMOUTH	PLMOCA11	8,249,300	2,677	3,081	1,749	4,717	YES
POINT ARENA	PNARCA11	3,677,238	907	4,052	646	5,692	NO
POINT REYES	PRSNCA11	14,560,460	1,365	10,665	938	15,523	YES
PORTERVILLE	PTVLCA11	646,641	13,020	50	6,261	103	YES
PORTOLA	PTOLCA01	10,124,754	1,639	6,179	1,124	9,008	YES
POTTER VALLEY	PTVYCA11	30,652,454	805	38,098	579	52,940	NO
POWAY MIDLAND	POWYCA11	2,301,714	6,099	377	3,160	728	YES
QUINCY	QNCYCA12	21,816,363	2,722	8,014	2,013	10,838	YES
R S MARGARITA	RSMGCA11	2,116,986	4,928	430	2,312	916	YES
RAMONA	RAMNCA11	13,835,855	4,621	2,994	2,181	6,344	YES
RAMPART	LSANCA11	5,832,998	29,689	196	13,387	436	YES
RANCHO BERNARDO	RBRNCA11	19,519,390	11,300	1,727	5,095	3,831	YES

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Table 7.14 (page 10 of 13)							
Wire Center	CLLI	Total Gross Additions 2010-2017	Average Access Lines 2010-2017	Gross Adds per Avg Access Line	Access Lines Dec 2017	Gross Adds per Dec 2017 Access Line	Broadband Available
RANCHO MURIETTA	RNMRCA11	18.354.101	1.578	11.634	647	28.368	YES
RANCHO PENASQUITOS	RNPSCA11	1.613.683	4.072	396	1.699	950	YES
RANCHO SAN DIEGO	RNSDCA11	4,185,296	2,015	2,077	963	4,346	YES
RANCHO SANTA FE	RSFECA12	42,445,494	6,467	6,563	3,677	11,544	YES
RED BLUFF	RDBLCA01	3,803,525	8,043	473	4,261	893	YES
REDDING ENTERPR	RDNGCA11	5,593,667	9,498	589	3,993	1,401	YES
REDDING MAIN	RDNGCA02	546,219	14,146	39	6,326	86	YES
REDWOOD CITY	RDCYCA01	10,908,110	18,471	591	9,046	1,206	YES
RESEDA	RESDCA01	32,231,696	25,589	1,260	11,891	2,711	YES
RIALTO	RILTCA11	15,194,643	11,497	1,322	4,594	3,307	YES
RICH APPIAN WAY EL SOBRAN	ELSBCA11	17,817,726	8,541	2,086	3,762	4,736	YES
RICHMOND	LSANCA09	17,017,441	14,539	1,170	7,415	2,295	YES
RICHMOND SF	RCMDCA11	17,017,441	18,591	915	8,477	2,007	YES
RICHVALE	RCVACA11	688,490	158	4,365	112	6,147	NO
RIO DELL	RIDECA11	31,563,299	639	49,394	265	119,107	YES
RIO LINDA	RILNCA12	4,809,739	3,200	1,503	1,361	3,534	YES
RIVERBANK	RVRBCA11	27,621,266	3,334	8,285	1,189	23,231	YES
RIVERDALE	RVDLCA11	28,117,263	858	32,772	396	71,003	YES
RIVERSIDE ORANGE	RVSDCA01	4,834,863	21,032	230	9,353	517	YES
ROHNERT PARK	RTPKCA11	14,246,410	5,252	2,713	2,467	5,775	YES
ROSAMOND	RSMDCA11	7,546,957	3,264	2,312	1,389	5,433	YES
ROSEMEAD	ROSMCA11	6,565,574	16,788	391	7,788	843	YES
S J CAPISTRANO	SJCPCA12	13,502,489	9,255	1,459	4,730	2,855	YES
SALINAS MAIN	SLNSCA01	17,078,880	15,012	1,138	6,829	2,501	YES
SAN ANDREAS	SNADCA11	7,775,795	2,349	3,311	1,448	5,370	YES
SAN ARDO	SNARCA11	4,623,595	182	25,361	120	38,530	YES
SAN BRUNO	SNBUCA02	1,900,083	21,158	90	11,319	168	YES
SAN CARLOS	SNCRCA11	1,571,774	15,314	103	7,702	204	YES
SAN CLEMENTE	SNCLCA12	15,576,085	6,274	2,483	3,010	5,175	YES
SAN GABRIEL	SNGBCA01	3,375,189	12,497	270	5,505	613	YES
SAN GERONIMO	SNGNCA11	6,937,389	954	7,268	509	13,629	YES
SAN JOSE ALMADEN VALLEY	SNJSCA18	269,785	7,681	35	3,330	81	YES
SAN JOSE BAILEY	SNJSCA22	3,796,905	238	15,932	159	23,880	NO
SAN JOSE CHYNOWETH	SNJSCA13	15,649,891	20,822	752	8,818	1,775	YES
SAN JOSE DIAL WAY	SNJSCA12	1,478,924	33,255	44	15,085	98	YES
SAN JOSE EVERGREEN SAN F	ESNJSCA15	4,176,209	14,077	297	6,015	694	YES
SAN JOSE FOXWORTHY	SNJSCA14	2,245,402	24,834	90	10,938	205	YES
SAN JOSE JUNCTION	SNJSCA21	3,719,856	11,594	321	6,956	535	YES
SAN JOSE MAIN	SNJSCA02	1,392,683	30,720	45	15,016	93	YES
SAN JOSE WHITE RD	SNJSCA11	21,157,944	22,015	961	9,366	2,259	YES
SAN JUAN BAUSTISTA	SNJNCA11	1,296,016	883	1,467	436	2,973	YES
SAN LEANDRO	SNLNCA11	7,732,960	20,670	374	9,624	804	YES
SAN LUCAS	SNLCCA11	1,836,727	80	22,941	50	36,735	NO
SAN LUIS OBISPO	SNLOCA01	1,545,960	10,737	144	5,302	292	YES
SAN LUIS OBISPO	SNLOCA01	2,396,922	10,737	223	5,302	452	YES
SAN MARTIN	SNMACA11	1,503,025	1,387	1,084	736	2,042	YES
SAN MATEO	SNMTCA11	11,078,829	17,583	630	8,965	1,236	YES
SAN PEDRO	SNPDCA01	20,553,995	17,553	1,171	8,641	2,379	YES



Table 7.14 (page 11 of 13)							
Wire Center	CITI	Total Gross Additions 2010-2017	Average Access Lines 2010-2017	Gross Adds per Avg Access Line	Access Lines Dec 2017	Gross Adds per Dec 2017 Access Line	Broadband Available
SAN RAFAFL MAIN	SNRECA01	4 704 085	16,310	288	8 1 1 8	579	YES
SAN RAMON	SNRMCA11	18 405 123	10 383	1 773	4 809	3 827	YES
SAN YSIDRO	SNYSCA12	3 569 283	3 542	1,770	1 528	2 336	YES
SANTA ANA WEST SNAN BOLS	SISNANCA12	2 102 583	8 488	248	3 431	613	YES
SANTA CLARA BELLOMY	SNTCCA11	9 159 757	23 834	384	10 503	872	YES
SANTA CLARA SPACEPARK	SNTCCA01	3 707 678	9 010	412	5 315	698	YES
SANTA CRUZ	SNCZCA01	1 478 691	14 827	100	7 244	204	YES
SANTA CRUZ CAPITOLA		5 78/ 769	12 551	461	5 725	1 010	VES
SANTA GILOZ CALITOLA		1 218 351	083	1 202	608	6 938	VES
SANTA MARCARITA	SNRSCA01	25 862 577	32 279	9,252	13 702	1 888	VES
SANTEE	SANTCA01	1 / 17 03/	5 / 28	261	2 603	526	VES
SATICOV	SATCCA12	6 575 673	5 73/	1 1/17	2,000	2 813	VES
SAUGUS	SAGSCA11	12 / 11 875	8 230	1,147	2,000	1 12/	VES
SAUSALITO LARKSPUR	SSI TCA11	12,411,875	3 981	3 118	2 021	6 141	YES
SCOTTS VALLEY	SCVYCA01	1 420 021	3 495	406	1 551	916	YES
SCRM EMPIRE	SCRMCA12	2 217 071	10 772	206	4 950	448	YES
SCRM FRUITRIDGE	SCRMCA13	3 641 351	7 631	477	3 569	1 020	YES
SCRM GARDEN	SCRMCA03	2 3/3 380	23 864	98	10 321	227	VES
SCRM GLADSTONE	SCRMCA11	1 7/1 700	14 601	110	7 078	246	VES
SCRM IVANHOE	SCRMCA02	3 380 172	19 900	170	8 826	240	VES
SEASIDE	SESDCA11	1 037 894	5 184	200	2 169	479	YES
SERASTAPOL	SBSTCA11	1,007,004	6 713	1/0	2,105	311	VES
SELMA	SELMCA11	1 686 550	4 497	375	1 975	854	YES
	ASMTCA11	1 118 991	114	9 835	85	13 165	NO
	SCRMCALE	1 735 309	12 987	134	6 970	249	NO
SE BUSH PINE	SNECCA01	12 856 144	27 148	474	17 069	753	YES
SE EVERGREEN 9TH AVE	SNECCA13	14 017 680	19 990	701	10 499	1 335	YES
SE FOLSOM	SNECCA21	4 456 579	13 704	325	8 638	516	YES
SE LARKIN STEINER	SNECCA12	17 256 497	43 321	398	25 267	683	YES
SE MARKET MCCOPPIN	SNECCA04	4 034 480	22 075	183	12,389	326	YES
SE MISSION 25TH ST	SNECCA05	21 944 137	23 241	944	11 716	1 873	YES
SHAFTER	SHETCA11	2 562 749	2 318	1 106	924	2 774	YES
SHASTALAKE	SHI KCA01	3 267 597	608	5 372	375	8 714	YES
SHERMAN OAKS	SHOKCA01	13 721 981	29 707	462	15 779	870	YES
SHINGI E SPRINGS	SGSPCA11	10 622 105	8 524	1 246	4 060	2 616	YES
SHOSHONE	SHSHCA11	7.540.361	177	42.679	141	53,478	NO
SIFRRA CITY	SRCYCA11	5,285,368	459	11,508	444	11,904	YES
SIFRRAVILLE	SRVI CA11	4 087 403	243	16 839	171	23,903	NO
SILVERADO	SLVRCA11	14.883.775	296	50,290	203	73,319	YES
SIMI	SIMICA11	25,223,992	21,799	1,157	9,285	2,717	YES
SMARTSVILLE	SMAVCA11	4.311.940	578	7.459	361	11.944	YES
SNDG 37TH STREET	SNDGCA06	2.048.098	10.998	186	4.613	444	YES
SNDG C STREET	SNDGCA01	2,251,456	12.676	178	6,668	338	YES
SNDG COLLEGE	SNDGCA11	8,239.348	6.625	1.244	2,986	2.759	YES
SNDG LINDA VISTA	SNDGCA03	4.662.446	19.116	244	9,517	490	YES
SNDG MARKET STRFFT	SNDGCA12	3,028,606	6,425	471	2.530	1.197	YES
SNDG MIRA MESA	SNDGCA16	572.176	13.687	42	6.319	.,	YES
SNDG REGENTS	SNDGCA15	13,015,978	13,966	932	7,903	1,647	YES

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Table 7.14 (page 12 of 13)							
Wire Center	CLLI	Total Gross Additions 2010-2017	Average Access Lines 2010-2017	Gross Adds per Avg Access Line	Access Lines Dec 2017	Gross Adds per Dec 2017 Access Line	Broadband Available
SNDG SAIPAN	SNDGCA05	1,148,355	6.098	188	2,566	448	YES
SNDG TENNYSON	SNDGCA14	1 754 538	6 848	256	3 272	536	YES
SNDG UNIVERSITY	SNDGCA02	10 652 833	12 388	860	6,318	1 686	YES
SODA SPRINGS	SDSPCA11	21 057 290	1 030	20 453	591	35,630	YES
SOLEDAD	SLDDCA11	1.067.324	2,484	430	1,109	962	YES
SOLEMINT	SLMNCA11	1.375.472	10.370	133	4.056	339	YES
SONOMA	SONMCA12	3.010.354	9,595	314	4,646	648	YES
SONORA	SNRACA13	19,479,642	10,330	1.886	5,699	3.418	YES
SOUT PASADENA MISSION	SPSDCA11	706.774	6.666	106	3.273	216	YES
SOUTH GATE	SGATCA01	2.183.021	14,941	146	5,730	381	YES
SOUTH TAHOE MEYERS APAC	STAHCA13	11.838.377	2.264	5.229	930	12.729	YES
SOUTH TAHOE SUSSEX	STAHCA01	5,804,169	7.054	823	3,163	1,835	YES
SOUTH TAHOE TAMARACK	STAHCA12	5.700.629	311	18.345	140	40,719	YES
SPECTRUM IRVINE	IRVNCA12	15.501.093	2.620	5.915	1.881	8.241	YES
SPRINGVILLE	SPVLCA11	244.432	1.312	186	862	284	NO
ST HELENA	STHNCA11	7.432.015	4.303	1.727	2.614	2.843	YES
STANFORD RANCH	RCKLCA01	1.594.788	3.454	462	1.442	1,106	YES
STINSON BEACH	STBHCA11	1.559.504	1.709	913	1.285	1.214	YES
STOCKTON ASHLEY	SKTNCA12	959.745	2.694	356	1,409	681	YES
STOCKTON GRANITE	SKTNCA11	1.298.735	21,968	59	9.065	143	YES
STOCKTON MAIN	SKTNCA01	349,416	20,588	17	9,166	38	YES
STOCKTON REDWOOD	SKTNCA14	7,341,503	3,630	2,023	1,690	4,344	YES
STONYFORD	STFRCA11	541,619	234	2,316	153	3,540	NO
STRATFORD	SRFRCA11	21,959,639	242	90,621	109	201,465	YES
SUISUN CITY	SUISCA11	17,086,830	834	20,476	408	41,879	YES
SUNOL	SUNLCA11	1,983,593	296	6,706	206	9,629	YES
SUTTER CREEK	STCKCA11	1,876,124	1,385	1,355	827	2,269	YES
TAHOE CITY	THCYCA01	1,210,817	5,360	226	2,850	425	YES
TECHACHAPI	THCHCA01	9,862,060	5,027	1,962	2,201	4,481	YES
TEMPLETON	TMTNCA11	669,477	1,768	379	786	852	YES
TERRA BELLA	TRBLCA11	9,577,108	957	10,005	458	20,911	YES
THORNTON	THTNCA11	747,660	280	2,674	121	6,179	YES
THREE RIVERS	THRRCA11	670,482	1,074	624	672	998	YES
TIBURON	TBRNCA11	4,060,538	3,588	1,132	1,915	2,120	YES
TIPTON	TPTNCA11	2,104,512	550	3,826	242	8,696	YES
TOMALES	TMLSCA12	2,216,317	536	4,139	328	6,757	YES
TORRANCE	TRNCCA11	874,605	11,473	76	5,031	174	YES
TRACY	TRACCA11	7,782,680	12,022	647	5,062	1,537	YES
TRES PINOS	TRPSCA11	4,934,710	338	14,593	232	21,270	YES
TRINIDAD	TRNDCA11	1,100,976	615	1,791	332	3,316	NO
TRUCKEE	TRUCCA11	3,321,819	8,438	394	4,000	830	YES
TULARE	TULRCA11	3,511,929	10,317	340	4,611	762	YES
TURLOCK	TRLCCA11	538,816	16,840	32	7,875	68	YES
TUSTIN 11	TUSTCA11	659,464	18,240	36	8,385	79	YES
TUSTIN 70	TUSTCA70	2,647,881	1,135	2,332	714	3,709	YES
TWAIN HARTE	TWHRCA11	1,086,758	3,725	292	1,876	579	YES
UKIAH MAIN	UKIHCA01	5,574,645	7,930	703	4,474	1,246	YES
UNION	LSANCA06	1,628,127	11,834	138	5,400	302	YES



Table 7.14 (page 13 of 13)								
Wine Orantan		Total Gross Additions	Average Access Lines	Gross Adds per Avg Access	Access Lines Dec	Gross Adds per Dec 2017 Access	Broadband	
		2010-2017	2010-2017		2017			
		9,901,047	11,901	039 27 052	0,000	1,797	TES	
		23,302,232	044 12 760	27,952	401	51,155	TES	
VACAVILLE		970,924	15,700	202	0,200	100	TES	
		4,004,000	10,100	202	7,230	629	TES	
		1,203,099	0,000	204	2,000	449	TES	
		2,240,300	329	0,032	1 261	10,073	NU	
	VISPCATT	504,415 622,262	2,203	249	12 260	440 51	TES	
		1 200 722	27,000	620	2 012	1 560	TES	
		4,300,733	12 000	105	2,013	1,000	TES VES	
		10 823 570	12,030	80.082	3,713 81	133 62/	VES	
		1 376 163	10 3/5	71	8 244	100,024	VES	
	VISECA12	1,370,103	14 750	90	6 820	107	VES	
WABASH	NSCRCA11	954 431	17 849	53	8 252	116	YES	
WALKER BASIN	WIRSCA11	1 843 592	604	3 051	497	3 709	NO	
WALLACE	WLLCCA11	526 914	673	783	434	1 214	YES	
WALNUT CREEK	WNCKCA11	346 087	27 157	13	13 253	26	YES	
WARNER SPRINGS	WNSPCA12	284 138	696	408	432	658	NO	
WASCO	WASCCA01	2 223 061	2 385	932	944	2 355	YES	
WATERFORD	WTFRCA11	1,143,279	1,981	577	899	1,272	YES	
WATSONVILLE	WTVLCA01	12,245,635	17.071	717	8.672	1,412	YES	
WAWANA	WANACA11	855.250	358	2.392	277	3.088	YES	
WEED	WEEDCA01	1.539.298	1.909	807	973	1.582	YES	
WEOTT	WEOTCA11	9.344.801	88	106.760	63	148,330	YES	
WHEATLAND	WTLDCA12	1.065.113	1.172	908	589	1.808	YES	
WILLITS	WLTSCA12	13,485,002	3,834	3,517	2,339	5,765	YES	
WILLOWS	WLWSCA11	375,931	2,413	156	1,130	333	YES	
WILMINGTON	WLMGCA01	711,642	14,391	49	6,414	111	YES	
WINDSOR	WNDSCA11	19,176,342	4,418	4,341	1,892	10,135	YES	
WINTERS	WNTRCA11	734,777	1,819	404	832	883	YES	
WOODCREST	RVSDCA11	185,249	7,764	24	3,119	59	YES	
WOODLAKE	WDLKCA11	342,621	1,536	223	658	521	YES	
WOODLAND	WDLDCA11	1,005,576	11,274	89	4,926	204	YES	
YORBA LINDA	YRLNCA11	1,179,413	9,507	124	3,960	298	YES	
YOSEMITE MAIN	YSMTCA11	7,223,597	685	10,539	537	13,452	YES	
YOUNTVILLE	YNVLCA11	354,354	1,674	212	897	395	YES	
YREKA	YREKCA11	236,701	3,165	75	1,634	145	YES	
YUBA CITY MARYSVILLE	YBCYCA01	297,360	12,370	24	5,421	55	YES	
Source, AT&T DR-03A, AT&T Forms 43-02, AT&T GO-133C Trouble Report submissions								



#### Summary and conclusions

As a relatively small – and increasingly less important – component of the massive AT&T Inc., AT&T California's financial condition and investment policies are largely subject to the parent company's control. The California ILEC entity has no ability to raise equity capital on its own and, at the moment, appears to have relatively limited debt on its books. Plant retirements and depreciation accruals have generally exceeded Gross Plant Additions on an annual basis, and the company's net Telecommunications Plant in Service (TPIS) – roughly equivalent to what would be considered its "rate base" under rate-of-return regulation – has eroded to only about \$5-billion, resulting in a Net-to-Gross book value ratio of roughly 13.7%.

It is clear that AT&T California has been consistently *disinvesting* in its California local network infrastructure. Moreover, a large portion of AT&T California's Gross Plant Additions appear to have been directed toward expanding its ability to offer services like broadband Internet access and video, rather than core legacy circuit-switched POTS services. A case in point can be seen in the investment being directed to central office switching equipment: Over the 2010-2017 period, AT&T California expended more than \$1-billion on new packet switching equipment – none of which is used in the provision of legacy POTS services – vs. only about \$100-million to replace aging circuit-switching equipment that is needed for legacy services.

There appears to be wide variation across all of AT&T California's 615 wire centers as to the amount of new investment that has been directed at each of them, and ETI has not observed any specific pattern to explain this prioritization. There is no indication, for example, that investment dollars are being directed toward those wire centers that have been underperforming with respect to service quality or in their ability to meet the Commision's GO 133-C/D service quality standards.

Notably, while the demand for AT&T California legacy POTS services has dropped by nearly 70% over the 2010-2017 period, the company's operating revenues have remained relatively close to their 2010 levels. With some year-to-year variation, revenues at the end of the 2010-2017 period are still close to 90% of what they were at its start.

One key explanation for this appears to be AT&T California's policy of effecting significant price increases for its legacy residential POTS services almost every year since the CPUC's adoption of the Uniform Regulatory Framework in 2006. AT&T California residential flat-rate (POTS) prices have risen by 152%, and for measured residential service, prices have jumped by 325%. These large and persistent price increases – coupled with the general deterioration in service quality as discussed in Chapter 4 – are entirely consistent with what appears to be a "harvesting strategy" with respect to legacy circuit-switched services.

"Harvesting" of this sort works where the price elasticity of demand is sufficiently low that persistent price increases will still be profitable. The fact that AT&T has been able to profitably implement this succession of annual rate increases for more than a decade since the de-tariffing



of basic residential voice service raises serious questions as to whether competition has developed to a point where continued regulatory protection of basic residential telephone service prices is no longer required or appropriate. In competitive markets, customers will normally respond to price increases by switching to substitute services or by purchasing less. Here, however, AT&T's "harvesting" strategy is founded on the expectation that, while *some* customers will discontinue their service in response to the steadily increasing prices, there are still a sufficiently large number of customers who confront few if any actual competitive alternatives and/or who simply retain their AT&T legacy POTS service due to inertia – they simply haven't gotten around to seeking out any alternatives.

Finally, and as we discussed in Chapter 4, this same "harvesting" philosophy would also explain why AT&T has failed to improve service quality for its POTS services at least to the point where the GO 133-C/D standards can be achieved. Where customers have competitive alternatives, they will respond to inferior service by "voting with their feet" and seeking out alternative suppliers. But if the market is not so competitive that customers face such limited choices, the provider has little financial incentive to direct its financial and other resources in this area.



AT&T's "harvesting" philosophy explains why AT&T has failed to improve service quality for its POTS services at least to the point where the GO 133-C/D standards can be achieved, because the gains it can realize by raising prices and curtailing investment and maintenance far exceed any financial penalties it might suffer from persistently poor service quality.

