
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended June 30, 2020

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File Number: 000-24612

ADTRAN, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or other jurisdiction of
incorporation or organization)
901 Explorer Boulevard
Huntsville, Alabama
(Address of principal executive offices)

63-0918200
(I.R.S. Employer
Identification No.)
35806-2807
(Zip Code)

Registrant's telephone number, including area code: (256) 963-8000

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, Par Value \$0.01 per share	ADTN	The NASDAQ Global Select Market

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of August 6, 2020, the registrant had 47,957,952 shares of common stock, \$0.01 par value per share, outstanding.

ADTRAN, Inc.

Quarterly Report on Form 10-Q
For the Three and Six Months Ended June 30, 2020

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

The Private Securities Litigation Reform Act of 1995 provides a safe harbor for forward-looking statements made by or on behalf of ADTRAN, Inc. (“ADTRAN”, the “Company”, “we”, “our” or “us”). ADTRAN and its representatives may from time to time make written or oral forward-looking statements, including statements contained in this report, our other filings with the Securities and Exchange Commission (the “SEC”) and other communications with our stockholders. Any statement that does not directly relate to a historical or current fact is a forward-looking statement. Generally, the words, “believe”, “expect”, “intend”, “estimate”, “anticipate”, “will”, “may”, “could” and similar expressions identify forward-looking statements. We caution you that any forward-looking statements made by us or on our behalf are subject to uncertainties and other factors that could affect the accuracy of such statements. The following are some of the risks that could affect our financial performance or could cause actual results to differ materially from those expressed or implied in our forward-looking statements:

- Our operating results may fluctuate in future periods, which may adversely affect our stock price.
- Our revenues for a particular period can be difficult to predict, and a shortfall in revenue may harm our operating results.
- General economic conditions may reduce our revenues and harm our operating results, financial condition and cash flows.
- The ongoing COVID-19 pandemic could adversely affect our business, results of operations and financial condition, including possible disruptions in our supply chain, workforce and/or customer demand.
- Our exposure to the credit risks of our customers and distributors may make it difficult to collect accounts receivable and could adversely affect our operating results, financial condition and cash flows.
- We expect gross margins to vary over time, and our levels of product and services gross margins may not be sustainable.
- We must continue to update and improve our products and develop new products to compete and to keep pace with improvements in communications technology.
- Our products may not continue to comply with evolving regulations governing their sale, which may harm our business.
- We are subject to complex and evolving U.S. and foreign laws and regulations regarding privacy, data protection and other matters. Violations of these laws and regulations may harm our business.
- A material weakness in our internal control over financial reporting could result in a loss of investor confidence in the reliability of our financial statements, which in turn could negatively affect the price of our common stock.
- Failure to comply with the U.S. Foreign Corrupt Practices Act and similar laws associated with our global activities could subject us to penalties or other adverse consequences.
- Our operating results may be adversely affected due to uncertain global economic and financial market conditions.
- Our failure or the failure of our contract manufacturers to comply with applicable environmental regulations could adversely impact our results of operations.
- If our products do not interoperate with our customers’ networks, installations may be delayed or cancelled, which could harm our business.
- The lengthy sales and approval process required by service providers for new products could result in fluctuations in our revenue.
- Although we engage in research and development activities to develop new, innovative solutions and improve the application of developed technologies, we may miss certain market opportunities enjoyed by larger companies with substantially greater research and development resources.
- We depend heavily on sales to certain customers; the loss of any of these customers would significantly reduce our revenues and net income.
- If we are unable to integrate acquisitions successfully, it could adversely affect our operating results, financial condition and cash flow.
- Our strategy of outsourcing a portion of our manufacturing requirements to subcontractors located in various international regions may result in us not meeting our cost, quality or performance standards.
- Our dependence on a limited number of suppliers for certain raw materials and key components may prevent us from delivering our products on a timely basis, which could have a material adverse effect on customer relations and operating results.
- We compete in markets that have become increasingly competitive, which may result in reduced gross profit margins and market share.
- Our estimates regarding future warranty obligations may change due to product failure rates, installation and shipment volumes, field service repair obligations and other rework costs incurred in correcting product failures. If our estimates change, the liability for warranty obligations may be increased or decreased, impacting future cost of goods sold.
- Managing our inventory is complex and may include write-downs of excess or obsolete inventory.
- The continuing growth of our international operations could expose us to additional risks, increase our costs and adversely affect our operating results, financial condition and cash flow.
- We may be adversely affected by fluctuations in currency exchange rates.
- Our success depends on our ability to reduce the selling prices of succeeding generations of our products.
- Breaches in our information systems and cyber-attacks could compromise our intellectual property and cause significant damage to our business and reputation.

- Our failure to maintain rights to intellectual property used in our business could adversely affect the development, functionality and commercial value of our products.
- Software under license from third parties for use in certain of our products may not continue to be available to us on commercially reasonable terms.
- Our use of open source software could impose limitations on our ability to commercialize our products.
- We may incur liabilities or become subject to litigation that may have a material effect on our business.
- We depend on distributors who maintain inventories of our products. If the distributors reduce their inventories of these products, our sales could be adversely affected.
- If we are unable to successfully develop and maintain relationships with system integrators, service providers and enterprise value-added resellers, our sales may be negatively affected.
- If we fail to manage our exposure to worldwide financial and securities markets successfully, our operating results and financial statements could be materially impacted.
- New or revised tax regulations, changes in our effective tax rate or assessments arising from tax audits may have an adverse impact on our results.
- We are required to periodically evaluate the value of our deferred tax assets and long-lived assets, including the value of our intangibles and goodwill resulting from business acquisitions. Any future valuation allowances or impairment charges required may adversely affect our operating results.
- We may not fully realize the anticipated benefits of our restructuring plans. Our restructuring efforts may adversely affect our business and our operating results.
- Our success depends on attracting and retaining key personnel.
- Regulatory and potential physical impacts of climate change and other natural events may affect our customers and our production operations, resulting in adverse effects on our operating results.
- The price of our common stock has been volatile and may continue to fluctuate significantly.

The foregoing list of risks is not exclusive. For a more detailed description of the risk factors associated with our business, see Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 25, 2020 (the “2019 Form 10-K”), as well as the risk factors set forth in Part II, Item 1A of this Quarterly Report on Form 10-Q. We caution investors that other factors may prove to be important in the future in affecting our operating results. New factors emerge from time to time, and it is not possible for us to predict all of these factors, nor can we assess the impact each factor, or a combination of factors, may have on our business.

You are further cautioned not to place undue reliance on these forward-looking statements because they speak only of our views as of the date that the statements were made. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

GLOSSARY OF SELECTED TERMS

Below are certain acronyms, concepts and defined terms commonly used in our industry and in this Quarterly Report on Form 10-Q, along with their meanings:

Acronym/Concept/ Defined Term	Meaning
carrier	An entity that provides voice, data or video services to consumers and businesses
CPE	Customer-Premises Equipment
CSP	Communication Service Provider
DSO	Days Sales Outstanding
FCC	Federal Communications Commission
FTTN	Fiber to the Node
Gfast	A digital subscriber line protocol standard for local loops (telephone lines) shorter than 500 meters with performance targets between 100 Mbps (as defined below) and 1 gigabit per second, depending on loop length
LAN	Local Area Network
MSO	Multiple System Operator
PON	Passive Optical Network
SD-Access	Software Defined Access
SP	Service Provider
U.S.	United States
WAN	Wide Area Network

PART I. FINANCIAL INFORMATION
ITEM 1. FINANCIAL STATEMENTS

ADTRAN, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)
(In thousands, except per share amounts)

	June 30, 2020	December 31, 2019
ASSETS		
Current Assets		
Cash and cash equivalents	\$ 69,059	\$ 73,773
Restricted cash	1,186	—
Short-term investments	9,033	33,243
Accounts receivable, less allowance for doubtful accounts of \$38 as of June 30, 2020 and December 31, 2019	95,335	90,531
Other receivables	26,026	16,566
Inventory	106,131	98,305
Prepaid expenses and other current assets	8,104	7,892
Total Current Assets	314,874	320,310
Property, plant and equipment, net	65,194	68,086
Deferred tax assets, net	7,573	7,561
Goodwill	6,968	6,968
Intangibles, net	25,455	27,821
Other assets	18,225	19,883
Long-term investments	84,383	94,489
Total Assets	\$ 522,672	\$ 545,118
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities		
Accounts payable	\$ 62,465	\$ 44,870
Bonds payable	—	24,600
Unearned revenue	12,090	11,963
Accrued expenses and other liabilities	12,466	13,876
Accrued wages and benefits	17,683	13,890
Income tax payable, net	2,450	3,512
Total Current Liabilities	107,154	112,711
Non-current unearned revenue	6,166	6,012
Pension liability	15,649	15,886
Deferred compensation liability	21,908	21,698
Other non-current liabilities	7,601	8,385
Total Liabilities	158,478	164,692
Commitments and contingencies (see Note 18)		
Stockholders' Equity		
Common stock, par value \$0.01 per share; 200,000 shares authorized; 79,652 shares issued and 47,957 shares outstanding as of June 30, 2020 and 79,652 shares issued and 48,020 shares outstanding as of December 31, 2019	797	797
Additional paid-in capital	278,078	274,632
Accumulated other comprehensive loss	(15,346)	(16,417)
Retained earnings	787,220	806,702
Treasury stock at cost: 31,568 and 31,636 shares at June 30, 2020 and December 31, 2019, respectively	(686,555)	(685,288)
Total Stockholders' Equity	364,194	380,426
Total Liabilities and Stockholders' Equity	\$ 522,672	\$ 545,118

See accompanying notes to condensed consolidated financial statements.

ADTRAN, INC.
CONDENSED CONSOLIDATED STATEMENTS OF INCOME (LOSS)
(Unaudited)
(In thousands, except per share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Sales				
Network Solutions	\$ 111,323	\$ 139,167	\$ 208,695	\$ 264,989
Services & Support	17,392	17,224	34,543	35,193
Total Sales	128,715	156,391	243,238	300,182
Cost of Sales				
Network Solutions	64,071	80,175	115,697	150,909
Services & Support	11,172	11,201	22,469	23,646
Total Cost of Sales	75,243	91,376	138,166	174,555
Gross Profit	53,472	65,015	105,072	125,627
Selling, general and administrative expenses	30,799	33,619	57,419	68,751
Research and development expenses	28,712	32,064	58,571	63,711
Gain on contingency	—	(1,230)	—	(1,230)
Asset impairments	—	—	65	—
Operating Income (Loss)	(6,039)	562	(10,983)	(5,605)
Interest and dividend income	331	692	687	1,283
Interest expense	—	(127)	(1)	(254)
Net investment gain (loss)	9,852	2,485	(1,025)	8,411
Other income (expense), net	(1,757)	(205)	(628)	650
Income (Loss) Before Income Taxes	2,387	3,407	(11,950)	4,485
Income tax (expense) benefit	(1,635)	588	2,733	280
Net Income (Loss)	\$ 752	\$ 3,995	\$ (9,217)	\$ 4,765
Weighted average shares outstanding – basic	47,958	47,802	47,957	47,792
Weighted average shares outstanding – diluted	48,254	48,036	47,957	47,939
Earnings (loss) per common share – basic	\$ 0.02	\$ 0.08	\$ (0.19)	\$ 0.10
Earnings (loss) per common share – diluted	\$ 0.02	\$ 0.08	\$ (0.19)	\$ 0.10

See accompanying notes to condensed consolidated financial statements.

ADTRAN, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(Unaudited)
(In thousands)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Net Income (Loss)	\$ 752	\$ 3,995	\$ (9,217)	\$ 4,765
Other Comprehensive Income (Loss), net of tax				
Net unrealized gains on available-for-sale securities	373	107	490	292
Defined benefit plan adjustments	191	150	332	271
Foreign currency translation	1,899	533	249	(627)
Other Comprehensive Income (Loss), net of tax	2,463	790	1,071	(64)
Comprehensive Income (Loss), net of tax	\$ 3,215	\$ 4,785	\$ (8,146)	\$ 4,701

See accompanying notes to condensed consolidated financial statements.

ADTRAN, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
(Unaudited)
(In thousands)

	Common Shares	Common Stock	Additional Paid-In Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
Balance as of January 1, 2019	79,652	\$ 797	\$ 267,670	\$ 883,975	\$ (691,747)	\$ (14,416)	\$ 446,279
Net income	—	—	—	770	—	—	770
Adoption of new accounting standards	—	—	—	(381)	—	385	4
Other comprehensive loss, net of tax	—	—	—	—	—	(854)	(854)
Dividend payments (\$0.09 per share)	—	—	—	(4,301)	—	—	(4,301)
Dividends accrued on unvested RSUs	—	—	—	(18)	—	—	(18)
PSUs, RSUs and restricted stock vested	—	—	—	(865)	857	—	(8)
Purchases of treasury stock	—	—	—	—	(184)	—	(184)
Stock-based compensation expense	—	—	1,859	—	—	—	1,859
Balance as of March 31, 2019	<u>79,652</u>	<u>\$ 797</u>	<u>\$ 269,529</u>	<u>\$ 879,180</u>	<u>\$ (691,074)</u>	<u>\$ (14,885)</u>	<u>\$ 443,547</u>
Net income	—	—	—	3,995	—	—	3,995
Other comprehensive income, net of tax	—	—	—	—	—	790	790
Dividend payments (\$0.09 per share)	—	—	—	(4,303)	—	—	(4,303)
Dividends accrued on unvested RSUs	—	—	—	(34)	—	—	(34)
Stock options exercised	—	—	—	(208)	734	—	526
Stock-based compensation expense	—	—	1,454	—	—	—	1,454
Balance at June 30, 2019	<u>79,652</u>	<u>\$ 797</u>	<u>\$ 270,983</u>	<u>\$ 878,630</u>	<u>\$ (690,340)</u>	<u>\$ (14,095)</u>	<u>\$ 445,975</u>

	Common Shares	Common Stock	Additional Paid-In Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
Balance as of January 1, 2020	79,652	\$ 797	\$ 274,632	\$ 806,702	\$ (685,288)	\$ (16,417)	\$ 380,426
Net loss	—	—	—	(9,969)	—	—	(9,969)
Other comprehensive loss, net of tax	—	—	—	—	—	(1,392)	(1,392)
Dividend payments (\$0.09 per share)	—	—	—	(4,328)	—	—	(4,328)
Dividends accrued on unvested RSUs	—	—	—	(32)	—	—	(32)
Deferred compensation adjustments, net of tax	—	—	—	—	(2,758)	—	(2,758)
PSUs, RSUs and restricted stock vested	—	—	—	(1,524)	1,501	—	(23)
Stock-based compensation expense	—	—	1,791	—	—	—	1,791
Balance as of March 31, 2020	<u>79,652</u>	<u>\$ 797</u>	<u>\$ 276,423</u>	<u>\$ 790,849</u>	<u>\$ (686,545)</u>	<u>\$ (17,809)</u>	<u>\$ 363,715</u>
Net income	—	—	—	752	—	—	752
Other comprehensive income, net of tax	—	—	—	—	—	2,463	2,463
Dividend payments (\$0.09 per share)	—	—	—	(4,337)	—	—	(4,337)
Dividends accrued on unvested RSUs	—	—	—	(28)	—	—	(28)
Deferred compensation adjustments, net of tax	—	—	—	—	(24)	—	(24)
PSUs, RSUs and restricted stock vested	—	—	—	(16)	14	—	(2)
Stock-based compensation expense	—	—	1,655	—	—	—	1,655
Balance at June 30, 2020	<u>79,652</u>	<u>\$ 797</u>	<u>\$ 278,078</u>	<u>\$ 787,220</u>	<u>\$ (686,555)</u>	<u>\$ (15,346)</u>	<u>\$ 364,194</u>

See accompanying notes to condensed consolidated financial statements.

ADTRAN, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)
(In thousands)

	Six Months Ended June 30,	
	2020	2019
Cash flows from operating activities:		
Net income (loss)	\$ (9,217)	\$ 4,765
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Depreciation and amortization	8,404	8,913
Asset impairments	65	—
Amortization of net premium on available-for-sale investments	86	(57)
Net (gain) loss on long-term investments	1,025	(8,411)
Net loss on disposal of property, plant and equipment	52	58
Gain on contingency	—	(1,230)
Gain on life insurance proceeds	—	(1,000)
Stock-based compensation expense	3,446	3,313
Deferred income taxes	(5)	(1,880)
Changes in operating assets and liabilities:		
Accounts receivable, net	(4,727)	(17,288)
Other receivables	(9,468)	11,678
Inventory	(7,878)	4,612
Prepaid expenses and other assets	1,444	4,715
Accounts payable, net	17,389	5,009
Accrued expenses and other liabilities	2,097	640
Income taxes payable	(1,032)	(2,830)
Net cash provided by operating activities	1,681	11,007
Cash flows from investing activities:		
Purchases of property, plant and equipment	(3,148)	(4,307)
Proceeds from sales and maturities of available-for-sale investments	63,318	24,306
Purchases of available-for-sale investments	(31,897)	(21,544)
Acquisition of note receivable	(523)	—
Life insurance proceeds received	—	1,000
Acquisition of business	—	13
Net cash provided by (used in) investing activities	27,750	(532)
Cash flows from financing activities:		
Proceeds from stock option exercises	—	526
Purchases of treasury stock	—	(184)
Dividend payments	(8,665)	(8,604)
Repayment of bonds payable	(24,600)	—
Net cash used in financing activities	(33,265)	(8,262)
Net increase (decrease) in cash, cash equivalents and restricted cash	(3,834)	2,213
Effect of exchange rate changes	306	(900)
Cash, cash equivalents and restricted cash, beginning of period	73,773	105,504
Cash, cash equivalents and restricted cash, end of period	\$ 70,245	\$ 106,817
Supplemental disclosure of non-cash investing activities:		
Purchases of property, plant and equipment included in accounts payable	\$ 198	\$ 205

See accompanying notes to condensed consolidated financial statements.

ADTRAN, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements of ADTRAN® Inc. and its subsidiaries (“ADTRAN”, the “Company”, “we”, “our” or “us”) have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (the “SEC”) applicable to interim financial information presented in Quarterly Reports on Form 10-Q. Accordingly, certain information and notes required by generally accepted accounting principles in the United States of America (“U.S. GAAP”) for complete financial statements are not included herein. The December 31, 2019 Condensed Consolidated Balance Sheet is derived from audited financial statements but does not include all disclosures required by U.S. GAAP.

In the opinion of management, all adjustments necessary to fairly state these interim statements have been recorded and are of a normal and recurring nature. The results of operations for an interim period are not necessarily indicative of the results for the full year. The interim financial statements should be read in conjunction with the consolidated financial statements and notes thereto included in ADTRAN’s Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 25, 2020.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expense during the reporting period. The more significant estimates include excess and obsolete inventory reserves, warranty reserves, customer rebates, determination and accrual of deferred revenue components of multi-element sales agreements, estimated costs to complete obligations associated with deferred and accrued revenues and network installations, estimated income tax provision and income tax contingencies, fair value of stock-based compensation, assessment of goodwill and other intangibles for impairment, estimated lives of intangible assets, estimated pension liability and fair value of investments. Actual amounts could differ significantly from these estimates.

We assessed certain accounting matters that generally require consideration of forecasted financial information in context with the information reasonably available to us and the unknown future impacts of the novel coronavirus (“COVID-19”) as of June 30, 2020 and through the date of this report. The accounting matters assessed included, but were not limited to, the allowance for doubtful accounts, current estimated credit losses, stock-based compensation, carrying value of goodwill, intangibles and other long-lived assets, financial assets, valuation allowances for tax assets and revenue recognition. While there was not a material impact to our consolidated financial statements as of and for the quarter ended June 30, 2020 resulting from these assessments, future conditions related to the magnitude and duration of the COVID-19 pandemic, as well as other factors, could result in material impacts to our consolidated financial statements in future reporting periods.

Correction of Immaterial Misstatements

During the three months ended June 30, 2019, the Company determined that there was an immaterial misstatement of its excess and obsolete inventory reserves in its previously issued annual and interim financial statements. The Company corrected this misstatement by recognizing a \$0.8 million out-of-period adjustment during the three months ended June 30, 2019, which increased its excess and obsolete inventory reserve and cost of goods sold for the period. For the six months ended June 30, 2019, the out-of-period adjustment was a cumulative \$0.2 million reduction in its excess and obsolete inventory reserve and cost of goods sold. In addition, the Company determined that a \$1.0 million cash inflow related to an insurance recovery was incorrectly classified as a cash flow from operations instead of a cash flow from investing activities within the unaudited Condensed Consolidated Statement of Cash Flows for the three months ended March 31, 2019. The Company corrected this misstatement in the Unaudited Condensed Consolidated Statement of Cash Flows for the six months ended June 30, 2019 to correctly reflect the \$1.0 million insurance recovery as a cash inflow from investing activities. Management determined that these misstatements were not material to any of its previously issued financial statements on both a quantitative and qualitative basis.

During the first quarter of 2020, it was determined that certain investments held in the Company's stock for a deferred compensation plan accounted for as a Rabbi trust were incorrectly classified as long-term investments with the fair value of such investments incorrectly marked to market at each period end rather than classified as treasury stock held at historical cost. This plan has been in existence since 2011. The Company corrected this misstatement as an out-of-period adjustment in the three months ended March 31, 2020 by remeasuring the investment assets to their historical cost basis through the recording of a net investment gain of \$1.5 million in the unaudited Condensed Consolidated Statement of Income (Loss) and then correcting the classification by decreasing the long-term investment balance at its remeasured cost basis of \$2.8 million to treasury stock in the unaudited Condensed Consolidated Balance Sheet as of March 31, 2020. Management has determined that this misstatement was not material to any of its previously issued financial statements and that correction of the misstatement is also not expected to be material to the 2020 annual financial results on either a quantitative or qualitative basis.

Recently Adopted Accounting Pronouncements

During 2020, we adopted the following accounting standards, which had the following impacts on our consolidated financial statements:

In June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-13, *Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*. ASU 2016-13 requires the measurement and recognition of expected credit losses for financial instruments held at amortized cost. In November 2018, the FASB issued ASU 2018-19, *Codification Improvements to Topic 326 Financial Instruments – Credit Losses*, which clarifies that receivables arising from operating leases are not within the scope of the credit losses standard, but rather should be accounted for in accordance with the standard for leases. In April 2019, the FASB issued ASU 2019-04, *Codification Improvements to Topic 326, Financial Instruments–Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments*, which clarifies the accounting for transfers between classifications of debt securities and clarifies that entities should include expected recoveries on financial assets in the calculation of the current expected credit loss allowance. In addition, renewal options that are not unconditionally cancelable should be considered in the determination of expected credit losses. In May 2019, the FASB issued ASU 2019-05, *Financial Instruments – Credit Losses (Topic 326): Targeted Transition Relief*, which amends ASU 2016-13 to allow companies, upon adoption, to elect the fair value option on financial instruments that were previously recorded at amortized cost if they meet certain criteria. In November 2019, the FASB issued ASU 2019-11, *Codification Improvements to Topic 326, Financial Instruments – Credit Losses*, which makes various narrow-scope amendments to the new credit losses standard, such as providing disclosure relief for accrued interest receivables. All of these ASUs were codified as part of ASC Topic 326 and were effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. The Company adopted this standard on January 1, 2020, using a modified-retrospective approach and, therefore, elected to carry forward legacy disclosures for comparative periods and did not adjust the comparative period financial information. Additionally, the Company made an accounting policy election, at the class of financing receivable, not to measure the allowance for credit losses for accrued interest receivables, as the Company writes off the uncollectable accrued interest receivable by reversing any previously recorded interest income in a timely manner (as soon as these amounts are determined to be uncollectable). The adoption of this standard did not have a material effect on our consolidated financial statements. See Note 19 for additional information.

In January 2017, the FASB issued ASU 2017-04, *Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*. ASU 2017-04 simplifies the measurement of goodwill by eliminating step 2 of the goodwill impairment test. Under ASU 2017-04, entities are required to compare the fair value of a reporting unit to its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. ASU 2017-04 was effective for annual or interim impairment tests performed in fiscal years beginning after December 15, 2019. The Company adopted ASU 2017-04 on January 1, 2020, and the amendments were applied prospectively. The adoption of this standard did not have a material effect on our consolidated financial statements.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement*, which changes the fair value measurement disclosure requirements of ASC 820, *Fair Value Measurement*. The amendments in this ASU are the result of a broader disclosure project, *Concepts Statement No. 8 – Conceptual Framework for Financial Reporting – Chapter 8 – Notes to Financial Statements*, which the FASB finalized on August 28, 2018. The FASB used the guidance in the Concepts Statement to improve the effectiveness of ASC 820's disclosure requirements. ASU 2018-13 provides users of financial statements with information about assets and liabilities measured at fair value in the statement of financial position or disclosed in the notes to the financial statements. More specifically, ASU 2018-13 requires disclosures about the valuation techniques and inputs that are used to arrive at measures of fair value, including judgments and assumptions that are made in determining fair value. In addition, ASU 2018-13 requires disclosures regarding the uncertainty in the fair value measurements as of the reporting date and how changes in fair value measurements affect performance and cash flows. The Company adopted ASU 2018-13 on January 1, 2020, and the adoption of this standard did not have a material effect on our consolidated financial statements.

In August 2018, the FASB issued ASU 2018-15, *Intangibles – Goodwill and Other – Internal-Use Software (Subtopic 350-40): Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract*. ASU 2018-15 clarifies certain aspects of ASU 2015-05, *Customer’s Accounting for Fees Paid in a Cloud Computing Arrangement*. Specifically, ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementations costs incurred to develop or obtain internal use software. The Company adopted ASU 2018-15 on January 1, 2020, retrospectively. The adoption of this standard resulted in a reclassification of \$5.6 million from property, plant and equipment to other assets for certain previously capitalized costs related to information technology implementation projects that had not yet been placed in service on the Condensed Consolidated Balance Sheets as of June 30, 2020 and December 31, 2019. There was no impact to previously reported net cash provided by (used in) operations on the statement of cash flows and no impact to the statements of income (loss) as no portion of the capitalized asset was depreciated in prior periods.

The following table illustrates the impact of adoption of ASU 2018-15 on the Condensed Consolidated Balance Sheet as of December 31, 2019:

<i>(In thousands)</i>	As of December 31, 2019		
	Pre-Adoption	Effect of Adoption	As Presented Now
Condensed Consolidated Balance Sheet			
Property, plant and equipment, net	\$ 73,708	\$ (5,622)	\$ 68,086
Other assets	\$ 14,261	\$ 5,622	\$ 19,883

The following table illustrates the impact of adoption of ASU 2018-15 on the Condensed Consolidated Statement of Income for the three and six months ended June 30, 2019 and the Condensed Consolidated Statement of Cash Flows for six months ended June 30, 2019:

<i>(In thousands)</i>	Three months ended June 30, 2019		
	Pre-Adoption	Effect of Adoption	As Presented Now
Condensed Consolidated Statement of Income (Loss)			
Net income	\$ 3,995	\$ —	\$ 3,995

<i>(In thousands)</i>	Six months ended June 30, 2019		
	Pre-Adoption	Effect of Adoption	As Presented Now
Condensed Consolidated Statement of Income (Loss)			
Net income	\$ 4,765	\$ —	\$ 4,765
Condensed Consolidated Statement of Cash Flows			
Net cash provided by operating activities	\$ 11,007	\$ —	\$ 11,007

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*, which simplifies the accounting for income taxes by removing various exceptions, such as the exception to the incremental approach for intra-period tax allocation when there is a loss from continuing operations and income or a gain from other items. The amendments in this update also simplify the accounting for income taxes related to income-based franchise taxes and require that an entity reflect enacted tax laws or rates in the annual effective tax rate computation in the interim period that includes the enactment date. The Company early adopted ASU 2019-12 on April 1, 2020, which will be applied on a prospective basis as if the Company adopted the standard on January 1, 2020. The Company early adopted the standard to take advantage of the simplification of rules for income taxes on intra-period tax allocations. Specifically, the adoption of this standard resulted in the recognition of approximately \$0.1 million of tax benefit in other comprehensive income (loss), that otherwise would have been recognized in continuing operations had the intra-period tax allocation been completed. There were no other impacts from this standard on the Condensed Consolidated Balance Sheets, Condensed Consolidated Statements of Income (Loss) or Condensed Consolidated Statements of Cash Flows.

Recent Accounting Pronouncements Not Yet Adopted

In August 2018, the FASB issued ASU 2018-14, *Compensation – Retirement Benefits – Defined Benefit Plans – General (Subtopic 715-20): Disclosure Framework – Changes to the Disclosure Requirements for Defined Benefit Plans*, which makes changes to and clarifies the disclosure requirements related to defined benefit pension and other postretirement plans. ASU 2018-14 requires additional disclosures related to the reasons for significant gains and losses affecting the benefit obligation and an explanation of any other significant changes in the benefit obligation or plan assets that are not otherwise apparent in other disclosures required by ASC 715. ASU 2018-14 also clarifies the guidance in ASC 715 to require disclosure of the projected benefit obligation (“PBO”) and fair value of plan assets for pension plans with PBOs in excess of plan assets and the accumulated benefit obligation (“ABO”) and fair value of plan assets for pension plans with ABOs in excess of plan assets. ASU 2018-14 is effective for public business entities for fiscal years ending after December 15, 2020. The Company is currently evaluating the impact this guidance will have on its related disclosures.

2. CASH, CASH EQUIVALENTS AND RESTRICTED CASH

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the consolidated balance sheet that sum to the total of the same such amounts shown in the consolidated statement of cash flows:

<i>(In thousands)</i>	<u>June 30, 2020</u>
Cash and cash equivalents	\$ 69,059
Restricted cash	1,186
Cash, cash equivalents and restricted cash	\$ 70,245

The Company did not have any restricted cash as of June 30, 2019.

See Note 18 for additional information regarding restricted cash.

3. REVENUE

The following is a description of the principal activities from which revenue is generated by reportable segment:

Network Solutions Segment - Includes hardware products and software-defined next-generation virtualized solutions used in service provider or business networks, as well as prior generation products.

Services & Support Segment - Includes maintenance, network implementation, solutions integration and managed services, which include hosted cloud services and subscription services.

Sales by Category

In addition to our reportable segments, revenue is also reported for the following three categories – Access & Aggregation, Subscriber Solutions & Experience and Traditional & Other Products.

The following tables disaggregate revenue by reportable segment and revenue category for the three and six months ended June 30, 2020 and 2019:

<i>(In thousands)</i>	<u>Three Months Ended</u>					
	<u>June 30, 2020</u>			<u>June 30, 2019</u>		
	<u>Network Solutions</u>	<u>Services & Support</u>	<u>Total</u>	<u>Network Solutions</u>	<u>Services & Support</u>	<u>Total</u>
Access & Aggregation	\$ 69,721	\$ 13,055	\$ 82,776	\$ 96,262	\$ 13,159	\$ 109,421
Subscriber Solutions & Experience	38,081	2,312	40,393	38,444	2,058	40,502
Traditional & Other Products	3,521	2,025	5,546	4,461	2,007	6,468
Total	\$ 111,323	\$ 17,392	\$ 128,715	\$ 139,167	\$ 17,224	\$ 156,391

Six Months Ended

<i>(In thousands)</i>	June 30, 2020			June 30, 2019		
	Network Solutions	Services & Support	Total	Network Solutions	Services & Support	Total
Access & Aggregation	\$ 122,776	\$ 25,966	\$ 148,742	\$ 181,935	\$ 27,264	\$ 209,199
Subscriber Solutions & Experience	78,064	4,508	82,572	73,163	4,092	77,255
Traditional & Other Products	7,855	4,069	11,924	9,891	3,837	13,728
Total	\$ 208,695	\$ 34,543	\$ 243,238	\$ 264,989	\$ 35,193	\$ 300,182

Revenue allocated to remaining performance obligations represents contract revenues that have not yet been recognized for contracts with a duration of greater than one year. As of June 30, 2020, we did not have any significant performance obligations related to customer contracts that had an original expected duration of one year or more, other than maintenance services, which are satisfied over time. As a practical expedient, for certain contracts we recognize revenue equal to the amounts that we are entitled to invoice, which correspond to the value of completed performance obligations to date. The amount related to these performance obligations was \$16.0 million and \$13.6 million as of June 30, 2020 and December 31, 2019, respectively. The Company expects to recognize 62% of the \$16.0 million as of June 30, 2020 over the next 12 months, with the remainder to be recognized thereafter.

The following table provides information about receivables, contract assets and unearned revenue from contracts with customers:

<i>(In thousands)</i>	June 30, 2020		December 31, 2019	
Accounts receivable, net	\$	95,335	\$	90,531
Contract assets ⁽¹⁾	\$	1,028	\$	2,812
Unearned revenue	\$	12,090	\$	11,963
Non-current unearned revenue	\$	6,166	\$	6,012

⁽¹⁾ Included in other receivables on the Condensed Consolidated Balance Sheets.

Of the outstanding unearned revenue balances as of December 31, 2019 and December 31, 2018, \$2.4 million and \$3.6 million were recognized as revenue during the three months ended June 30, 2020 and 2019, respectively, and \$8.1 million and \$10.5 million were recognized as revenue during the six months ended June 30, 2020 and 2019, respectively.

4. INCOME TAXES

Our effective tax rate increased from a benefit of 17.3% for the three months ended June 30, 2019 to an expense of 68.5% for the three months ended June 30, 2020 and decreased from a benefit of 6.2% for the six months ended June 30, 2019 to a benefit of 22.9% for the six months ended June 30, 2020. The change in the effective tax rate for the three months ended June 30, 2020 was impacted by tax expense in our international operations and additional changes in the valuation allowance related to our domestic operations. The change in the effective tax rate for the three and six months ended June 30, 2019 was primarily driven by the shift to profitability for the three and six months ended June 30, 2019, with tax expense being offset by a 29.1% rate reduction related to a transfer pricing study completed during the second quarter of 2019 that resulted in the assignment of operating expenditures to specific Company locations, and the effective income tax rates among the respective jurisdictions. The decrease in the effective tax rate for the six months ended June 30, 2020 was primarily driven by a tax benefit of \$7.4 million recognized during the six months ended June 30, 2020 as a result of the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") signed into law on March 27, 2020, which allowed for the carryback of federal net operating losses, partially offset with tax expense in our international operations and changes in our valuation allowance related to our domestic operations. An increase in the valuation allowance against our domestic deferred tax assets was recorded in the amount of \$3.6 million during the three and six months ended June 30, 2020.

The Company continually reviews the adequacy of its valuation allowance and recognizes the benefits of deferred tax assets only as the reassessment indicates that it is more likely than not that the deferred tax assets will be recognized in accordance with ASC 740, *Income Taxes*. As of June 30, 2020, the Company had deferred tax assets totaling \$59.8 million, and a valuation allowance totaling \$52.2 million had been established against those deferred tax assets. The remaining \$7.6 million in deferred tax assets not offset by a valuation allowance is located in various foreign jurisdictions where the Company believes that it is more likely than not that we will realize these deferred tax assets. Our assessment of the realizability of our deferred tax assets includes the evaluation of evidence, some of which requires significant judgement, including historical operating results, the evaluation of our three-year cumulative income position, future taxable income projections and tax planning strategies. Should management's conclusion change in the future and additional valuation allowance or a partial or full release of the valuation allowance is necessary, it could have a material effect on our consolidated financial statements.

Supplemental balance sheet information related to deferred tax assets as of June 30, 2020 and December 31, 2019 is as follows:

<i>(In thousands)</i>	June 30, 2020		
	Deferred Tax Assets	Valuation Allowance	Deferred Tax Assets, net
Domestic	\$ 50,164	\$ (50,164)	\$ —
International	9,603	(2,030)	7,573
Total	\$ 59,767	\$ (52,194)	\$ 7,573

<i>(In thousands)</i>	December 31, 2019		
	Deferred Tax Assets	Valuation Allowance	Deferred Tax Assets, net
Domestic	\$ 46,266	\$ (46,266)	\$ —
International	9,911	(2,350)	7,561
Total	\$ 56,177	\$ (48,616)	\$ 7,561

5. PENSION BENEFIT PLAN

The following table summarizes the components of net periodic pension cost related to a defined benefit pension plan covering employees in certain foreign countries for the three and six months ended June 30, 2020 and 2019:

<i>(In thousands)</i>	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2020	2019	2020	2019
Service cost	\$ 307	\$ 368	\$ 617	\$ 743
Interest cost	108	159	216	321
Expected return on plan assets	(407)	(348)	(817)	(703)
Amortization of actuarial losses	235	199	472	402
Net periodic pension cost	\$ 243	\$ 378	\$ 488	\$ 763

The components of net periodic pension cost, other than the service cost component, are included in other income (expense), net in the Condensed Consolidated Statements of Income (Loss). Service cost is included in cost of sales, selling, general and administrative expenses and research and development expenses in the Condensed Consolidated Statements of Income (Loss).

6. STOCK-BASED COMPENSATION

The following table summarizes stock-based compensation expense related to stock options, performance stock units (“PSUs”), restricted stock units (“RSUs”) and restricted stock for the three and six months ended June 30, 2020 and 2019:

<i>(In thousands)</i>	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2020	2019	2020	2019
Stock-based compensation expense included in cost of sales	\$ 87	\$ 85	\$ 202	\$ 189
Selling, general and administrative expense	971	662	2,046	1,725
Research and development expense	597	707	1,198	1,399
Stock-based compensation expense included in operating expenses	1,568	1,369	3,244	3,124
Total stock-based compensation expense	1,655	1,454	3,446	3,313
Tax benefit for expense associated with stock options, PSUs, RSUs and restricted stock	(394)	(332)	(821)	(775)
Total stock-based compensation expense, net of tax	\$ 1,261	\$ 1,122	\$ 2,625	\$ 2,538

PSUs, RSUs and Restricted Stock

The following table summarizes PSUs, RSUs and restricted stock outstanding as of December 31, 2019 and June 30, 2020 and the changes that occurred during the six months ended June 30, 2020.

	Number of Shares (in thousands)	Weighted Avg. Grant Date Fair Value (per share)
Unvested PSUs, RSUs and restricted stock outstanding, December 31, 2019	1,891	\$ 14.58
PSUs, RSUs and restricted stock granted	399	\$ 8.21
PSUs, RSUs and restricted stock vested	(13)	\$ 12.32
PSUs, RSUs and restricted stock forfeited	(518)	\$ 19.27
Unvested PSUs, RSUs and restricted stock outstanding, June 30, 2020	1,759	\$ 11.78

During the six months ended June 30, 2020, the Company issued 0.3 million performance-based PSUs under the ADTRAN, Inc. 2015 Employee Stock Incentive Plan (the “2015 Employee Plan”) to its executive officers and certain employees. The grant-date fair value of these performance-based awards is based on the closing price of the Company’s stock on the date of grant. Subject to the grantee’s continued employment, the grantee has the ability to earn shares in a range of 0% to 142.8% of the awarded number of PSUs based on the achievement of defined performance target at the end of a three-year period. If the Company achieves the performance target at the end of the first or second year during the performance period, the grantee will be entitled to the target number of performance shares, which will not be issued until the end of the three-year period. Equity-based compensation expense with respect to these awards will be adjusted over the vesting period to reflect the probability of achievement of the performance targets defined in the award agreements.

The fair value of RSUs and restricted stock is equal to the closing price of our stock on the date of grant. The fair value of PSUs with market conditions is calculated using a Monte Carlo simulation valuation method.

As of June 30, 2020, total unrecognized compensation expense related to non-vested market-based PSUs, RSUs and restricted stock was approximately \$12.7 million, which will be recognized over the remaining weighted-average period of 2.5 years. Unrecognized compensation expense will be adjusted for actual forfeitures.

At the annual meeting of stockholders held on May 13, 2020, the Company’s stockholders approved, upon recommendation of the Board of Directors, the adoption of the ADTRAN, Inc. 2020 Employee Stock Incentive Plan (the “2020 Employee Plan”) as well as the ADTRAN, Inc. 2020 Directors Stock Plan (the “2020 Directors Plan”). No additional awards will be granted under the 2015 Employee Plan or the 2010 Directors Stock Plan subsequent to the stockholders’ approval of these new stock plans. Outstanding awards granted under the 2015 Employee Plan and the 2010 Directors Stock Plan will remain subject to the terms of such plans, and shares underlying awards granted under such plans that are cancelled or forfeited will be available for issuance under the 2020 Employee Plan or the 2020 Directors Plan, as applicable.

Under the 2020 Employee Plan, the Company is authorized to issue 2.8 million shares of common stock to certain employees, key service providers and advisors through incentive stock options and non-qualified stock options, stock appreciation rights, RSUs and restricted stock, any of which may be subject to performance-based conditions. Options, RSUs and restricted stock granted under the 2020 Employee Plan reduce the shares authorized for issuance under the 2020 Employee Plan by one (1) share of common stock for each share underlying the award. Forfeitures, cancellations or expirations of awards granted under the 2015 Employee Plan increase the shares authorized for issuance under the 2020 Employee Plan, with forfeitures, cancellations or expirations of RSUs and restricted stock increasing the shares authorized for issuance by 2.5 shares of common stock for each share underlying the award. Forfeitures cancellations or expirations of options from the 2015 Employee Plan increase the shares authorized for issuance under the 2020 Employee Plan by one (1) share of common stock for each share underlying the award. RSUs and restricted stock granted under the 2020 Employee Plan will typically vest pursuant to a four-year vesting schedule beginning on the first anniversary of the grant date. Options granted under the 2020 Employee Plan will typically become exercisable beginning after one year of continued employment, normally pursuant to a four-year vesting schedule beginning on the first anniversary of the grant date and have a ten-year contractual term.

Under the 2020 Directors Plan, the Company is authorized to issue 0.4 million shares of common stock. Under the 2020 Directors Plan, the Company may issue stock options, restricted stock and RSUs to our non-employee directors. Stock awards issued under the 2020 Directors Plan typically will become vested in full on the first anniversary of the grant date. Options issued under the 2020 Directors Plan will have a ten-year contractual term. Options, restricted stock and RSUs granted under the 2020 Directors Plan reduce the shares authorized for issuance under the 2020 Directors Plan by one (1) share of common stock for each share underlying the award. Forfeitures, cancellations and expirations of awards granted under the 2010 Directors Stock Plan increase the shares authorized for issuance under the 2010 Directors Stock Plan or the 2020 Directors Plan by one (1) share of common stock for each share underlying the award.

As of June 30, 2020, 3.4 million shares were available for issuance under stockholder-approved equity plans.

Stock Options

The following table summarizes stock options outstanding as of December 31, 2019 and June 30, 2020 and the changes that occurred during the six months ended June 30, 2020:

	Number of Stock Options (in thousands)	Weighted Avg. Exercise Price (per share)	Weighted Avg. Remaining Contractual Life (in years)	Aggregate Intrinsic Value (in thousands)
Stock options outstanding, December 31, 2019	3,572	\$ 22.88	3.4	\$ —
Stock options exercised	—	\$ —		
Stock options forfeited	—	\$ —		
Stock options expired	(265)	\$ 21.20		
Stock options outstanding, June 30, 2020	3,307	\$ 22.93	2.9	\$ —
Stock options exercisable, June 30, 2020	3,305	\$ 22.93	2.9	\$ —

As of June 30, 2020, total unrecognized compensation expense related to non-vested stock options was approximately \$4 thousand, which will be recognized over the remaining weighted-average period of 0.3 years. Unrecognized compensation expense will be adjusted for actual forfeitures.

There were no stock options granted during the three and six months ended June 30, 2020 and 2019. All of the options were previously issued at exercise prices that approximated fair market value at the date of grant.

The aggregate intrinsic value of stock options represents the total pre-tax intrinsic value (the difference between ADTRAN's closing stock price on the last trading day of the quarter and the exercise price, multiplied by the number of in-the-money options) that would have been received by the option holders had all option holders exercised their options on June 30, 2020. The amount of aggregate intrinsic value will change based on the fair market value of ADTRAN's stock and was zero as of June 30, 2020. The total pre-tax intrinsic value of options exercised during the six months ended June 30, 2020 was zero.

7. INVESTMENTS

Debt Securities and Other Investments

As of June 30, 2020, the following debt securities and other investments were included on the Condensed Consolidated Balance Sheet and recorded at fair value:

(In thousands)	Amortized Cost	Gross Unrealized		Fair Value
		Gains	Losses	
Corporate bonds	\$ 13,747	\$ 168	\$ (1)	\$ 13,914
Municipal fixed-rate bonds	2,379	21	—	2,400
Asset-backed bonds	7,600	86	(4)	7,682
Mortgage/Agency-backed bonds	7,944	152	(12)	8,084
U.S. government bonds	7,935	211	—	8,146
Foreign government bonds	540	—	—	540
Commercial paper	1,120	4	—	1,124
Variable-rate demand notes	300	—	—	300
Other	442	—	—	442
Available-for-sale debt securities held at fair value	\$ 42,007	\$ 642	\$ (17)	\$ 42,632

As of December 31, 2019, the following debt securities and other investments were included on the Condensed Consolidated Balance sheet and recorded at fair value:

<i>(In thousands)</i>	Amortized	Gross Unrealized		Fair
	Cost	Gains	Losses	Value
Corporate bonds	\$ 9,304	\$ 80	\$ —	\$ 9,384
Municipal fixed-rate bonds	930	—	—	930
Asset-backed bonds	6,867	26	(3)	6,890
Mortgage/Agency-backed bonds	6,944	26	(8)	6,962
U.S. government bonds	12,311	21	(9)	12,323
Foreign government bonds	372	—	(1)	371
Variable-rate demand notes	800	—	—	800
Available-for-sale debt securities held at fair value	\$ 37,528	\$ 153	\$ (21)	\$ 37,660

As of June 30, 2020, contractual maturities related to debt securities and other investments were as follows:

<i>(In thousands)</i>	Corporate bonds	Municipal fixed-rate bonds	Asset-backed bonds	Mortgage/Agency-backed bonds	U.S. government bonds	Foreign government bonds	Commercial paper	Variable-rate demand notes	Other
Less than one year	\$ 5,441	\$ 738	\$ 465	\$ 146	\$ —	\$ —	\$ 1,124	\$ —	\$ 442
One to two years	2,926	528	465	603	1,638	75	—	—	—
Two to three years	5,547	757	1,141	1,528	6,065	465	—	—	—
Three to five years	—	377	3,932	—	443	—	—	—	—
Five to ten years	—	—	982	1,890	—	—	—	—	—
More than ten years	—	—	697	3,917	—	—	—	300	—
Total	\$ 13,914	\$ 2,400	\$ 7,682	\$ 8,084	\$ 8,146	\$ 540	\$ 1,124	\$ 300	\$ 442

Actual maturities may differ from contractual maturities as some borrowers have the right to call or prepay obligations with or without call or prepayment penalties.

Realized gains and losses on sales of debt securities are computed under the specific identification method. The following table presents gross realized gains and losses related to our debt securities:

<i>(In thousands)</i>	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Gross realized gains on debt securities	\$ 190	\$ 8	\$ 233	\$ 49
Gross realized losses on debt securities	(19)	(14)	(39)	(33)
Total gain recognized, net	\$ 171	\$ (6)	\$ 194	\$ 16

The Company's investment policy provides limitations for issuer concentration, which limits, at the time of purchase, the concentration in any one issuer to 5% of the market value of our total investment portfolio. The Company did not purchase any available-for-sale debt security with credit deterioration during the three months ended June 30, 2020.

Marketable Equity Securities

Our marketable equity securities consist of publicly traded stock, funds and certain other investments measured at fair value or cost (where appropriate).

During the three months ended March 31, 2019, an outstanding note receivable of \$4.3 million was repaid and reissued in the form of debt and equity. Of the outstanding \$4.3 million, \$3.4 million was issued as an equity investment, which represented a non-cash investing activity. We elected to record this equity investment that does not have a readily determinable fair value using the measurement alternative. Under the measurement alternative, equity investments that do not have a readily determinable fair value can be recorded at cost less impairment, if any, adjusted for observable price changes for an identical or similar investment. The carrying value of this investment under the measurement alternative was \$3.4 million as of December 31, 2019. During the six months ended June 30, 2020, an impairment charge of \$1.6 million was recorded related to this equity investment, which is included in net investment gain (loss) on the Condensed Consolidated Statement of Income (Loss). As a result, the carrying value of this investment was \$1.8 million as of June 30, 2020. The remaining amount, \$0.9 million of the original \$4.3 million note receivable, was reissued as a new note receivable, which is included in long-term investments on the Condensed Consolidated Balance Sheets as of June 30, 2020 and December 31, 2019, and represented a non-cash investing activity during the six months ended June 30, 2019. No impairment charge was recognized related to the note receivable as it is a secured loan.

Realized and unrealized gains and losses related to marketable equity securities for the three and six months ended June 30, 2020 and 2019 were as follows:

<i>(In thousands)</i>	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Realized gains (losses) on equity securities sold	\$ 328	\$ (49)	\$ (2,108)	\$ (63)
Unrealized gains (losses) on equity securities held	9,353	2,540	889	8,458
Total gain (loss) recognized, net	\$ 9,681	\$ 2,491	\$ (1,219)	\$ 8,395

U.S. GAAP establishes a three-level valuation hierarchy based upon observable and unobservable inputs for fair value measurement of financial instruments:

- Level 1 – Observable outputs; values based on unadjusted quoted prices for identical assets or liabilities in an active market;
- Level 2 – Significant inputs that are observable; values based on quoted prices in markets that are not active or model inputs that are observable either directly or indirectly;
- Level 3 – Significant unobservable inputs; values based on prices or valuation techniques that require inputs that are both unobservable and significant to the overall fair value measurement. These inputs could include information supplied by investees.

The Company's cash equivalents and investments held at fair value are categorized into this hierarchy as follows:

<i>(In thousands)</i>	Fair Value Measurements as of June 30, 2020 Using			
	Fair Value	Quoted Prices in Active Market for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash equivalents				
Money market funds	\$ 1,697	\$ 1,697	\$ —	\$ —
U.S. government securities	1,250	1,250	—	—
Commercial paper	100	—	100	—
Available-for-sale debt securities				
Corporate bonds	13,914	—	13,914	—
Municipal fixed-rate bonds	2,400	—	2,400	—
Asset-backed bonds	7,682	—	7,682	—
Mortgage/Agency-backed bonds	8,084	—	8,084	—
U.S. government bonds	8,146	8,146	—	—
Foreign government securities	540	—	540	—
Commercial paper	1,124	—	1,124	—
Variable-rate demand notes	300	—	300	—
Other	442	—	—	442
Marketable equity securities				
Marketable equity securities – various industries	26,116	26,116	—	—
Deferred compensation plan assets	20,468	20,468	—	—
Other investments	1,223	1,223	—	—
Total	\$ 93,486	\$ 58,900	\$ 34,144	\$ 442

<i>(In thousands)</i>	Fair Value Measurements as of December 31, 2019 Using			
	Fair Value	Quoted Prices in Active Market for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash equivalents				
Money market funds	\$ 1,309	\$ 1,309	\$ —	\$ —
Available-for-sale debt securities				
Corporate bonds	9,384	—	9,384	—
Municipal fixed-rate bonds	930	—	930	—
Asset-backed bonds	6,890	—	6,890	—
Mortgage/Agency-backed bonds	6,962	—	6,962	—
U.S. government bonds	12,323	12,323	—	—
Foreign government bonds	371	—	371	—
Variable-rate demand notes	800	—	800	—
Marketable equity securities				
Marketable equity securities – various industries	35,501	35,501	—	—
Equity in escrow	298	298	—	—
Deferred compensation plan assets	21,698	21,698	—	—
Other investments	2,442	2,442	—	—
Total	\$ 98,908	\$ 73,571	\$ 25,337	\$ —

The fair value of our Level 2 securities is calculated using a weighted average market price for each security. Market prices are obtained from a variety of industry standard data providers, large financial institutions and other third-party sources. These multiple market prices are used as inputs into a distribution-curve-based algorithm to determine the daily market value of each security.

The fair value of Level 3 securities is calculated based on unobservable inputs. Quantitative information with respect to unobservable inputs consists of third-party valuations performed in accordance with ASC 820 – *Fair Value Measurement*. Inputs used in preparing the third-party valuation included the following assumptions, among others: estimated discount rates and fair market yields.

8. INVENTORY

As of June 30, 2020 and December 31, 2019, inventory consisted of the following:

<i>(In thousands)</i>	<u>June 30, 2020</u>	<u>December 31, 2019</u>
Raw materials	\$ 37,057	\$ 36,987
Work in process	610	1,085
Finished goods	68,464	60,233
Total inventory	\$ 106,131	\$ 98,305

Inventory reserves are established for estimated excess and obsolete inventory equal to the difference between the cost of the inventory and the estimated net realizable value of the inventory based on estimated reserve percentages, which consider historical usage, known trends, inventory age and market conditions. As of June 30, 2020 and December 31, 2019, inventory reserves were \$35.9 million and \$34.1 million, respectively.

9. PROPERTY, PLANT AND EQUIPMENT

At June 30, 2020 and December 31, 2019, property, plant and equipment consisted of the following:

<i>(In thousands)</i>	<u>June 30, 2020</u>	<u>December 31, 2019</u>
Land	\$ 4,575	\$ 4,575
Building and land improvements	34,897	34,797
Building	68,155	68,157
Furniture and fixtures	19,972	19,959
Computer hardware and software	69,564	68,777
Engineering and other equipment	131,785	130,430
Total property, plant and equipment	328,948	326,695
Less: accumulated depreciation	(263,754)	(258,609)
Total property, plant and equipment, net	\$ 65,194	\$ 68,086

Long-lived assets used in operations are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable and the undiscounted cash flows estimated to be generated by the asset are less than the asset's carrying value. Due to the current economic environment, particularly related to COVID-19, the Company assessed impairment triggers related to long-lived assets during the second quarter of 2020. Based on this assessment, no triggers occurred to perform an impairment test, and no impairment losses of long-lived assets were recorded.

Depreciation expense was \$3.0 million and \$3.1 million for the three months ended June 30, 2020 and 2019, respectively, and \$6.0 million and \$6.2 million for the six months ended June 30, 2020 and 2019, respectively, which is recorded in cost of sales, selling, general and administrative expenses and research and development expenses in the Condensed Consolidated Statements of Income (Loss).

10. GOODWILL

Goodwill was \$7.0 million as of June 30, 2020 and December 31, 2019, of which \$6.6 million and \$0.4 million was allocated to our Network Solutions and Services & Support reportable segments, respectively.

The Company evaluates the carrying value of goodwill during the fourth quarter of each year and between annual evaluations if events occur or circumstances change that could more likely than not reduce the fair value of the reporting unit below its carrying amount. We assess qualitative factors to determine whether the fair value of the reporting unit to which the goodwill is assigned is less than its carrying amount and recognize an impairment charge for the amount by which the carrying value exceeds the fair value of the reporting unit. Due to the current economic environment, particularly related to COVID-19, the Company performed a triggering event assessment, in which no triggers were identified. Therefore, no interim impairment test of goodwill was performed as of June 30, 2020, and no impairment of goodwill was recorded.

11. INTANGIBLE ASSETS

Intangible assets as of June 30, 2020 and December 31, 2019 consisted of the following:

<i>(In thousands)</i>	June 30, 2020			December 31, 2019		
	Gross Carrying Amount	Accumulated Amortization	Net Book Value	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Customer relationships	\$ 20,742	\$ (6,690)	\$ 14,052	\$ 22,356	\$ (7,233)	\$ 15,123
Developed technology	8,200	(1,977)	6,223	10,170	(3,379)	6,791
Licensed technology	5,900	(1,503)	4,397	5,900	(1,174)	4,726
Supplier relationships	2,800	(2,800)	—	2,800	(2,508)	292
Licensing agreements	560	(116)	444	560	(79)	481
Patents	500	(260)	240	500	(226)	274
Trade names	210	(111)	99	310	(176)	134
Total	\$ 38,912	\$ (13,457)	\$ 25,455	\$ 42,596	\$ (14,775)	\$ 27,821

The Company evaluates the carrying value of intangible assets whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable and the undiscounted cash flows estimated to be generated by the asset are less than the asset's carrying value. Due to the current economic environment, particularly related to COVID-19, the Company assessed impairment triggers related to intangible assets during the second quarter of 2020. Based on this assessment, no triggers occurred to perform an impairment test, and no impairment losses of intangible assets were recorded.

Amortization expense was \$1.0 million and \$1.3 million for the three months ended June 30, 2020 and 2019, respectively, and \$2.4 million and \$2.7 million for the six months ended June 30, 2020 and 2019, respectively, and was included in cost of sales, selling, general and administrative expenses and research and development expenses in the Condensed Consolidated Statements of Income (Loss).

As of June 30, 2020, estimated future amortization expense of intangible assets was as follows:

<i>(In thousands)</i>	
2020	\$ 2,076
2021	4,095
2022	3,472
2023	3,320
2024	3,227
Thereafter	9,265
Total	\$ 25,455

12. LEASES

Operating Leases

Operating leases consist of office space, automobiles and various other equipment in the U.S. and in certain international locations in which we do business. Other contracts, such as manufacturing agreements and service agreements, are reviewed to determine if they contain any embedded leases. As of June 30, 2020, the operating leases had remaining lease terms of one month to five years, some of which include options to extend the leases for up to nine years, and some of which include options to terminate the leases within three months. As of June 30, 2020 and December 31, 2019, the Company's operating lease assets and operating lease liabilities were as follows:

<i>(In thousands)</i>	Classification	June 30, 2020	December 31, 2019
Assets			
Operating lease asset	Other assets	\$ 5,973	\$ 8,452
Total lease asset		\$ 5,973	\$ 8,452
Liabilities			
Current operating lease liability	Accrued expenses	\$ 1,854	\$ 2,676
Non-current operating lease liability	Other non-current liabilities	4,134	5,818
Total lease liability		\$ 5,988	\$ 8,494

Lease expense related to short-term leases (initial term of less than 12 months) was \$5 thousand and \$0.1 million for the three months ended June 30, 2020 and 2019, respectively, and was \$14 thousand and \$0.3 million for the six months ended June 30, 2020 and 2019, respectively, and was included in cost of sales, selling, general and administrative expenses and research and development expenses in the Condensed Consolidated Statements of Income (Loss). Lease expense related to variable lease payments that do not depend on an index or rate, such as real estate taxes and insurance reimbursements, was \$0.1 million and \$0.3 million for the three months ended June 30, 2020 and 2019, respectively and was \$0.3 million and \$0.4 million for the six months ended June 30, 2020 and 2019, respectively.

Components of lease expense included in the Condensed Consolidated Statements of Income (Loss) for the three and six months ended June 30, 2020 and 2019 were as follows:

<i>(In thousands)</i>	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Selling, general and administrative expenses	\$ 271	\$ 349	\$ 598	\$ 698
Research and development expenses	251	430	676	884
Cost of sales	26	17	47	33
Total operating lease expense	\$ 548	\$ 796	\$ 1,321	\$ 1,615

As of June 30, 2020 and December 31, 2019, operating lease liabilities included on the Condensed Consolidated Balance Sheets by future maturity were as follows:

<i>(In thousands)</i>	June 30, 2020	December 31, 2019
2020	\$ 1,048	\$ 2,856
2021	1,815	2,412
2022	1,514	1,705
2023	1,110	1,160
2024	478	482
Thereafter	264	264
Total lease payments	6,229	8,879
Less: Interest	(241)	(385)
Present value of lease liabilities	\$ 5,988	\$ 8,494

Future operating lease payments include \$0.5 million related to options to extend lease terms that are reasonably certain of being exercised. There are no legally binding leases that have not yet commenced.

An incremental borrowing rate is used based on information available at the commencement date in determining the present value of lease payments. The incremental borrowing rate was determined on a portfolio basis by grouping leases with similar terms as well as grouping leases based on a U.S. dollar or Euro functional currency. The actual rate is then determined based on a credit spread over LIBOR as well as the Bloomberg Curve Matrix for the U.S. Communications section. The following table provides information about the weighted average lease terms and weighted average discount rates as of June 30, 2020:

	As of June 30, 2020
Weighted average remaining lease term (in years)	
Operating leases with USD functional currency	2.5
Operating leases with Euro functional currency	4.0
Weighted average discount rate	
Operating leases with USD functional currency	4.46%
Operating leases with Euro functional currency	1.83%

Supplemental cash flow information related to operating leases is as follows:

<i>(In thousands)</i>	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2020	2019	2020	2019
Cash paid for amounts included in the measurement of operating lease assets / liabilities				
Cash used in operating activities related to operating leases	\$ 770	\$ 797	\$ 1,477	\$ 1,608
Right-of-use assets obtained in exchange for lease obligations	\$ 8	\$ 9	\$ 93	\$ 10,396

Net Investment in Sales-Type Leases

We are the lessor in sales-type lease arrangements for network equipment, which have initial terms of up to five years, and consisted of the following as of June 30, 2020 and December 31, 2019:

<i>(In thousands)</i>	June 30, 2020		December 31, 2019	
Current minimum lease payments receivable ⁽¹⁾	\$ 923		\$ 1,201	
Non-current minimum lease payments receivable ⁽²⁾		566		889
Total minimum lease payments receivable		1,489		2,090
Less: Current unearned revenue		265		365
Less: Non-current unearned revenue		92		163
Net investment in sales-type leases		\$ 1,132		\$ 1,562

⁽¹⁾ Included in other receivables on the Condensed Consolidated Balance Sheets.

⁽²⁾ Included in other assets on the Condensed Consolidated Balance Sheets.

Components of gross profit related to sales-type leases recognized at the lease commencement date and interest and dividend income included in the Condensed Consolidated Statements of Income (Loss) for the three and six months ended June 30, 2020 and 2019 were as follows:

<i>(In thousands)</i>	Three Months Ended				Six Months Ended			
	June 30,				June 30,			
	2020		2019		2020		2019	
Sales - Network Solutions	\$ 12	\$ 109	\$ 50	\$ 1,621				
Less: Cost of sales - Network Solutions	4	44	20	635				
Gross profit	\$ 8	\$ 65	\$ 30	\$ 986				
Interest and dividend income	\$ 11	\$ 99	\$ 24	\$ 186				

13. ALABAMA STATE INDUSTRIAL DEVELOPMENT AUTHORITY FINANCING AND ECONOMIC INCENTIVES

In conjunction with the 1995 expansion of our Huntsville, Alabama facility, we were approved for participation in an incentive program offered by the State of Alabama Industrial Development Authority (the "Authority"). Pursuant to the program, in January 1995, the Authority issued \$20.0 million of its taxable revenue bonds (the "Taxable Revenue Bonds") and loaned the proceeds from the sale of the Taxable Revenue Bonds to the Company. Further advances on the Taxable Revenue Bonds were made by the Authority, bringing the total amount to \$50.0 million. The Taxable Revenue Bonds bore interest, payable monthly with an interest rate of 2% per annum. The Taxable Revenue Bonds' aggregate principal amount outstanding as of December 31, 2019 of \$24.6 million matured on January 1, 2020 and was repaid in full on January 2, 2020, using the funds held in a certificate of deposit by the Company. This certificate of deposit, which totaled \$25.6 million, was included in short-term investments on the Condensed Consolidated Balance Sheet as of December 31, 2019.

14. STOCKHOLDERS' EQUITY

Stock Repurchase Program

Since 1997, the Company's Board of Directors has approved multiple share repurchase programs that have authorized repurchases of its common stock, which are implemented through open market or private purchases from time to time as conditions warrant. During the six months ended June 30, 2020, we did not repurchase shares of our common stock. As of June 30, 2020, we had the authority to purchase an additional 2.5 million shares of our common stock under the current authorization of up to 5.0 million shares.

Accumulated Other Comprehensive Income (Loss)

The following tables present the changes in accumulated other comprehensive loss, net of tax, by component for the three months ended June 30, 2020 and 2019:

	Three Months Ended June 30, 2020				
	Unrealized Gains (Losses) on Available-for-Sale Securities	Defined Benefit Plan Adjustments	Foreign Currency Adjustments	ASU 2018-02 Adoption (1)	Total
<i>(In thousands)</i>					
As of March 31, 2020	\$ (167)	\$ (9,085)	\$ (8,942)	\$ 385	\$ (17,809)
Other comprehensive income before reclassifications	881	—	1,899	—	2,780
Amounts reclassified from accumulated other comprehensive income (loss)	(508)	191	—	—	(317)
Net current period other comprehensive income	373	191	1,899	—	2,463
As of June 30, 2020	<u>\$ 206</u>	<u>\$ (8,894)</u>	<u>\$ (7,043)</u>	<u>\$ 385</u>	<u>\$ (15,346)</u>

	Three Months Ended June 30, 2019				
	Unrealized Gains (Losses) on Available-for-Sale Securities	Defined Benefit Plan Adjustments	Foreign Currency Adjustments	ASU 2018-02 Adoption (1)	Total
<i>(In thousands)</i>					
As of March 31, 2019	\$ (378)	\$ (7,920)	\$ (6,972)	\$ 385	\$ (14,885)
Other comprehensive income before reclassifications	180	—	533	—	713
Amounts reclassified from accumulated other comprehensive income (loss)	(73)	150	—	—	77
Net current period other comprehensive income	107	150	533	—	790
As of June 30, 2019	<u>\$ (271)</u>	<u>\$ (7,770)</u>	<u>\$ (6,439)</u>	<u>\$ 385</u>	<u>\$ (14,095)</u>

- (1) With the adoption of ASU 2018-02 on January 1, 2019, stranded tax effects related to the Tax Cuts and Jobs Act of 2017 were reclassified to retained earnings.

The following tables present the changes in accumulated other comprehensive loss, net of tax, by component for the six months ended June 30, 2020 and 2019:

	Six Months Ended June 30, 2020				
	Unrealized Gains (Losses) on Available- for-Sale Securities	Defined Benefit Plan Adjustments	Foreign Currency Adjustments	ASU 2018-02 Adoption ⁽¹⁾	Total
<i>(In thousands)</i>					
As of December 31, 2019	\$ (284)	\$ (9,226)	\$ (7,292)	\$ 385	\$ (16,417)
Other comprehensive income (loss) before reclassifications	(50)	—	249	—	199
Amounts reclassified from accumulated other comprehensive income	540	332	—	—	872
Net current period other comprehensive income	490	332	249	—	1,071
As of June 30, 2020	\$ 206	\$ (8,894)	\$ (7,043)	\$ 385	\$ (15,346)

	Six Months Ended June 30, 2019				
	Unrealized Gains (Losses) on Available- for-Sale Securities	Defined Benefit Plan Adjustments	Foreign Currency Adjustments	ASU 2018-02 Adoption ⁽¹⁾	Total
<i>(In thousands)</i>					
As of December 31, 2018	\$ (563)	\$ (8,041)	\$ (5,812)	\$ —	\$ (14,416)
Other comprehensive income (loss) before reclassifications	411	—	(627)	—	(216)
Amounts reclassified from accumulated other comprehensive income (loss)	(119)	271	—	—	152
Amounts reclassified to retained earnings ⁽¹⁾	—	—	—	385	385
Net current period other comprehensive income (loss)	292	271	(627)	385	321
As of June 30, 2019	\$ (271)	\$ (7,770)	\$ (6,439)	\$ 385	\$ (14,095)

(1) With the adoption of ASU 2018-02 on January 1, 2019, stranded tax effects related to the Tax Cuts and Jobs Act of 2017 were reclassified to retained earnings.

The following tables present the details of reclassifications out of accumulated other comprehensive loss for the three months ended June 30, 2020 and 2019:

<i>(In thousands)</i>	Three Months Ended June 30, 2020	
	Amount Reclassified from Accumulated Other Comprehensive Income (Loss)	Affected Line Item in the Statement Where Net Income Is Presented
Unrealized gains (losses) on available-for-sale securities:		
Net realized gains on sales of securities	\$ 686	Net investment gain (loss)
Defined benefit plan adjustments – actuarial losses	(277)	(1)
Total reclassifications for the period, before tax	409	
Tax expense	(92)	
Total reclassifications for the period, net of tax	\$ 317	

(1) Included in the computation of net periodic pension cost. See Note 5.

<i>(In thousands)</i>	Three Months Ended June 30, 2019	
	Amount Reclassified from Accumulated Other Comprehensive Income (Loss)	Affected Line Item in the Statement Where Net Income Is Presented
Unrealized gains (losses) on available-for-sale securities:		
Net realized gains on sales of securities	\$ 99	Net investment gain (loss)
Defined benefit plan adjustments – actuarial losses	(217)	(1)
Total reclassifications for the period, before tax	(118)	
Tax benefit	41	
Total reclassifications for the period, net of tax	\$ (77)	

(1) Included in the computation of net periodic pension cost. See Note 5.

The following tables present the details of reclassifications out of accumulated other comprehensive loss for the six months ended June 30, 2020 and 2019:

<i>(In thousands)</i>	Six Months Ended June 30, 2020	
	Amount Reclassified from Accumulated Other Comprehensive Income (Loss)	Affected Line Item in the Statement Where Net Income Is Presented
Unrealized gains (losses) on available-for-sale securities:		
Net realized losses on sales of securities	\$ (730)	Net investment gain
Defined benefit plan adjustments – actuarial losses	(481)	(1)
Total reclassifications for the period, before tax	(1,211)	
Tax benefit	339	
Total reclassifications for the period, net of tax	\$ (872)	

(1) Included in the computation of net periodic pension cost. See Note 5.

Six Months Ended June 30, 2019

<i>(In thousands)</i>	Amount Reclassified from Accumulated Other Comprehensive Income (Loss)	Affected Line Item in the Statement Where Net Income Is Presented
Unrealized gains (losses) on available-for-sale securities:		
Net realized gains on sales of securities	\$ 161	Net investment gain
Defined benefit plan adjustments – actuarial losses	(393)	(1)
Total reclassifications for the period, before tax	(232)	
Tax benefit	80	
Total reclassifications for the period, net of tax	\$ (152)	

(1) Included in the computation of net periodic pension cost. See Note 5.

The following table presents the tax effects related to the change in each component of other comprehensive income (loss) for the three months ended June 30, 2020 and 2019:

<i>(In thousands)</i>	Three Months Ended June 30, 2020			Three Months Ended June 30, 2019		
	Before-Tax Amount	Tax (Expense) Benefit	Net-of-Tax Amount	Before-Tax Amount	Tax (Expense) Benefit	Net-of-Tax Amount
Unrealized gain on available-for-sale securities	\$ 1,191	\$ (310)	\$ 881	\$ 243	\$ (63)	\$ 180
Reclassification adjustment for amounts related to available-for-sale investments included in net income (loss)	(686)	178	(508)	(99)	26	(73)
Reclassification adjustment for amounts related to defined benefit plan adjustments included in net income (loss)	277	(86)	191	217	(67)	150
Foreign currency translation adjustment	1,899	—	1,899	533	—	533
Total Other Comprehensive Income (Loss)	\$ 2,681	\$ (218)	\$ 2,463	\$ 894	\$ (104)	\$ 790

The following table presents the tax effects related to the change in each component of other comprehensive income (loss) for the six months ended June 30, 2020 and 2019:

<i>(In thousands)</i>	Six Months Ended June 30, 2020			Six Months Ended June 30, 2019		
	Before-Tax Amount	Tax (Expense) Benefit	Net-of-Tax Amount	Before-Tax Amount	Tax (Expense) Benefit	Net-of-Tax Amount
Unrealized gain (loss) on available-for-sale securities	\$ (68)	\$ 18	\$ (50)	\$ 555	\$ (144)	\$ 411
Reclassification adjustment for amounts related to available-for-sale investments included in net income (loss)	730	(190)	540	(161)	42	(119)
Reclassification adjustment for amounts related to defined benefit plan adjustments included in net income (loss)	481	(149)	332	393	(122)	271
Foreign currency translation adjustment	249	—	249	(627)	—	(627)
Total Other Comprehensive Income (Loss)	\$ 1,392	\$ (321)	\$ 1,071	\$ 160	\$ (224)	\$ (64)

15. EARNINGS (LOSS) PER SHARE

A summary of the calculation of basic and diluted earnings (loss) per share for the three and six months ended June 30, 2020 and 2019 is as follows:

<i>(In thousands, except per share amounts)</i>	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Numerator				
Net income (loss)	\$ 752	\$ 3,995	\$ (9,217)	\$ 4,765
Denominator				
Weighted average number of shares – basic	47,958	47,802	47,957	47,792
Effect of dilutive securities				
Stock options	—	7	—	—
PSUs, RSUs and restricted stock	296	227	—	147
Weighted average number of shares – diluted	48,254	48,036	47,957	47,939
Earnings (loss) per share – basic	\$ 0.02	\$ 0.08	\$ (0.19)	\$ 0.10
Earnings (loss) per share – diluted	\$ 0.02	\$ 0.08	\$ (0.19)	\$ 0.10

For the three months ended June 30, 2020 and 2019, 0.1 million and 15 thousand shares, respectively, and for the six months ended June 30, 2020 and 2019, 0.2 million and 0.1 million shares, respectively, of unvested PSUs, RSUs and restricted stock were excluded from the calculation of diluted earnings per share due to their anti-dilutive effect.

For the three months ended June 30, 2020 and 2019, 4.1 million and 1.9 million stock options, respectively, and for the six months ended June 30, 2020 and 2019, 4.9 million and 2.3 million stock options, respectively, were outstanding but were not included in the computation of diluted earnings per share. These stock options were excluded because their exercise prices were greater than the average market price of the common shares during the quarter, making them anti-dilutive under the treasury stock method.

16. SEGMENT INFORMATION

The chief operating decision maker regularly reviews the Company's financial performance based on two reportable segments: (1) Network Solutions and (2) Services & Support. Network Solutions includes hardware and software products and next-generation virtualized solutions used in service provider or business networks, as well as prior-generation products. Services & Support includes a portfolio of maintenance, network installation and solution integration services, which include hosted cloud services and subscription services.

The performance of our segments is evaluated based on gross profit; therefore, selling, general and administrative expenses, research and development expenses, interest and dividend income, interest expense, net investment gain (loss), other income (expense) and (provision) benefit for income taxes are reported on a Company-wide basis only. There is no inter-segment revenue. Asset information by reportable segment is not produced and, therefore, is not reported.

The following tables present information about the sales and gross profit of our reportable segments for the three and six months ended June 30, 2020 and 2019.

<i>(In thousands)</i>	Three Months Ended			
	June 30, 2020		June 30, 2019	
	Sales	Gross Profit	Sales	Gross Profit
Network Solutions	\$ 111,323	\$ 47,252	\$ 139,167	\$ 58,992
Services & Support	17,392	6,220	17,224	6,023
Total	\$ 128,715	\$ 53,472	\$ 156,391	\$ 65,015

<i>(In thousands)</i>	Six Months Ended			
	June 30, 2020		June 30, 2019	
	Sales	Gross Profit	Sales	Gross Profit
Network Solutions	\$ 208,695	\$ 92,998	\$ 264,989	\$ 114,080
Services & Support	34,543	12,074	35,193	11,547
Total	\$ 243,238	\$ 105,072	\$ 300,182	\$ 125,627

Sales by Category

In addition to our reporting segments, revenue is also reported for the following three categories – Access & Aggregation, Subscriber Solutions & Experience and Traditional & Other Products.

The table below presents sales information by category for the three and six months ended June 30, 2020 and 2019:

<i>(In thousands)</i>	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Access & Aggregation	\$ 82,776	\$ 109,421	\$ 148,742	\$ 209,199
Subscriber Solutions & Experience	40,393	40,502	82,572	77,255
Traditional & Other Products	5,546	6,468	11,924	13,728
Total	\$ 128,715	\$ 156,391	\$ 243,238	\$ 300,182

Sales by Geographic Area

The following table presents sales information by geographic area for the three and six months ended June 30, 2020 and 2019:

<i>(In thousands)</i>	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
United States	\$ 84,458	\$ 75,288	\$ 163,449	\$ 147,816
International	44,257	81,103	79,789	152,366
Total	\$ 128,715	\$ 156,391	\$ 243,238	\$ 300,182

17. LIABILITY FOR WARRANTY RETURNS

Our products generally include warranties of 90 days to five years for product defects. Warranty returns are accrued at the time revenue is recognized based on an estimate of the cost to repair or replace the defective products. We engage in extensive product quality programs and processes, including actively monitoring and evaluating the quality of our component suppliers. Products continue to become more complex in both size and functionality as many of our product offerings migrate from line card applications to total systems. The increasing complexity of products will cause warranty incidences, when they arise, to be more costly. Estimates regarding future warranty obligations may change due to product failure rates, material usage and other rework costs incurred in correcting a product failure. In addition, from time to time, specific warranty accruals may be recorded if unforeseen problems arise. Should actual experience relative to these factors be worse than estimated, additional warranty expense will be incurred. Alternatively, if actual costs incurred are less than estimated, a portion of the warranty reserves will be reversed in future periods. The liability for warranty obligations totaled \$7.3 million and \$8.4 million as of June 30, 2020 and December 31, 2019, respectively, and are included in accrued expenses and other liabilities in the accompanying Condensed Consolidated Balance Sheets.

A reconciliation of warranty expense and related write-off activity for the three and six months ended June 30, 2020 and 2019 is as follows:

<i>(In thousands)</i>	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Balance at beginning of period	\$ 7,635	\$ 8,802	\$ 8,394	\$ 8,623
Plus: Amounts charged to cost and expenses	393	1,849	338	2,980
Less: Deductions	(734)	(1,679)	(1,438)	(2,631)
Balance at end of period	\$ 7,294	\$ 8,972	\$ 7,294	\$ 8,972

18. COMMITMENTS AND CONTINGENCIES

Securities Class Action Lawsuit

On October 17, 2019, a purported stockholder class action lawsuit, captioned *Burbridge v. ADTRAN, Inc. et al.*, Docket No. 19-cv-09619, was filed in the United States District Court for the Southern District of New York against the Company, two of its current executive officers and one of its former executive officers. The complaint alleges violations of federal securities laws and seeks unspecified compensatory damages on behalf of purported purchasers of ADTRAN securities between February 28, 2019 and October 9, 2019. The lawsuit claims that the defendants made materially false and misleading statements regarding, and/or failed to disclose material adverse facts about, the Company's business, operations and prospects, specifically relating to the Company's internal control over financial reporting, excess and obsolete inventory reserves, financial results and demand from certain customers. The lawsuit was transferred to the U.S. District Court for the Northern District of Alabama on January 7, 2020, and co-lead plaintiffs have been appointed to represent the putative class. The plaintiffs filed an amended complaint on April 30, 2020. The defendants filed a motion to dismiss the amended complaint on June 17, 2020. The plaintiffs filed an opposition brief to the defendants' motion to dismiss on July 17, 2020. The defendants intend to file a reply to the plaintiffs' brief on August 17, 2020. We deny the allegations in the complaint, as amended, and intend to vigorously defend against this lawsuit. At this time, we are unable to predict the outcome of or estimate the possible loss or range of loss, if any, associated with this lawsuit.

Shareholder Derivative Lawsuit

On March 31, 2020, a shareholder derivative suit, captioned *Johnson (Derivatively on behalf of ADTRAN) v. T. Stanton, M. Foliano, R. Shannon, and Board of Directors*, case no. 5:20-cv-00447, was filed in the U.S. District Court of Northern Alabama against two of the Company's current executive officers, one of its former executive officers and its Board of Directors. The derivative suit, which is purportedly brought on behalf of ADTRAN, makes similar allegations as the shareholder class action and accuses the directors and officers of breaches of fiduciary duty in connection with those allegations. On June 7, 2020, the Court entered an order staying the derivative litigation pending resolution of the motion to dismiss in the securities class action. The Company and its defendants disagree with the claims made in the complaint, and the defendants intend to vigorously defend against this lawsuit. At this time, we are unable to predict the outcome of or estimate the possible loss or range of loss, if any, associated with this lawsuit.

Other Legal Matters

In addition to the litigation described above, from time to time we are subject to or otherwise involved in various lawsuits, claims, investigations and legal proceedings that arise out of or are incidental to the conduct of our business (collectively, "Legal Matters"), including those relating to employment matters, patent rights, regulatory compliance matters, stockholder claims, and contractual and other commercial disputes. Such Legal Matters, even if not meritorious, could result in the expenditure of significant financial and managerial resources. Additionally, an unfavorable outcome in any legal matter, including in a patent dispute, could require the Company to pay damages, entitle claimants to other relief, such as royalties, or could prevent the Company from selling some of its products in certain jurisdictions. While the Company cannot predict with certainty the results of the Legal Matters in which it is currently involved, the Company does not expect that the ultimate outcome of such Legal Matters will individually or in the aggregate have a material adverse effect on its business, results of operations, financial condition or cash flows.

Performance Bonds

Certain contracts, customers and jurisdictions in which we do business require us to provide various guarantees of performance such as bid bonds, performance bonds and customs bonds. As of June 30, 2020 and December 31, 2019, we had commitments related to these bonds totaling \$11.3 million and \$9.3 million, respectively, which expire at various dates through August 2024. Although the triggering events vary from contract to contract, in general we would only be liable for the amount of these guarantees in the event of default under each contract, the probability of which we believe is remote.

In June of 2020, the Company entered into a letter of credit with a bank to guarantee performance obligations under a contract with a customer. The letter of credit is secured by a pledge of collateral in the amount of \$5.0 million, of which \$1.2 million is included in restricted cash and \$3.8 million is included in long-term investments on the Condensed Consolidated Balance Sheet as of June 30, 2020. Currently, the Company is required to maintain a minimum collateral value of approximately \$5.0 million. The minimum collateral value will increase over time as the Company reaches certain milestones in the contract. The maximum collateral value required under the contract will be approximately \$12.0 million, and this is expected to occur in February 2021. This minimum collateral value will increase further if the Company changes the mix of investments away from restricted cash and into other investments. Any shortfalls in the minimum collateral value are required to be restored by the Company from available cash and cash equivalents, short-term investments or long-term investments. The obligations under the customer contract will be performed over multiple years. The collateral under the letter of credit will be released when all obligations under the customer contract have been met. As of June 30, 2020, the Company was in compliance with all contractual requirements under the letter of credit.

Investment Commitment

We have committed to invest up to an aggregate of \$5.0 million in a private equity fund, of which \$4.9 million has been contributed as of June 30, 2020.

19. CURRENT EXPECTED CREDIT LOSSES

Under ASC 326 – *Financial Instruments – Credit Losses*, the Company estimates credit losses for the contractual life of assets that are measured at amortized cost and are within the scope of this guidance, which includes accounts receivable, net investment in sales-type leases, contract assets under the revenue recognition model and outstanding notes receivable. Where appropriate, the Company pools assets if similar risk characteristics exist. Additionally, the Company analyzes its available-for-sale debt securities for impairment and records a credit loss allowance as needed.

Assets Measured at Amortized Cost

Accounts Receivable

The Company records accounts receivable in the normal course of business as products are shipped or services are performed and invoiced, but payment has not yet been remitted by the customer. As of January 1, 2020 and June 30, 2020, the Company's outstanding accounts receivable balance was \$90.5 million and \$95.3 million, respectively. The Company assessed the need for an allowance for credit losses related to its outstanding accounts receivable as of June 30, 2020 and January 1, 2020 using the historical loss-rate method as well as assessing asset-specific risks. The Company's historical losses related to accounts receivable have been immaterial as evidenced by its historical allowance and write-offs due to uncollectability. The assessment of asset-specific risks included the evaluation of relevant available information, from internal and external sources, relating to current conditions that may affect a customer's ability to pay, such as the customer's current financial condition, credit rating by geographic location, as provided by a third party and/or by customer, if needed, and overall macro-economic conditions in which the customer operates. The Company pooled assets by geographic location to determine if an allowance should be applied to its accounts receivable balance, assessing the specific country risk rating and overall economics of that particular country. If elevated risk existed, or customer specific risk indicated the accounts receivable balance was at risk, the Company further analyzed the need for an allowance related to specific accounts receivable balances. Additionally, the Company determined that significant changes to customer country risk rating from period-to-period and from the end of the prior year to the end of the current quarter would require further review and analysis by the Company.

Accounts receivable balances are considered past due when payment has not been received by the date indicated on the relevant invoice or based on agreed upon terms between the customer and the Company.

No allowance for credit loss was recorded on January 1, 2020 (the "implementation date") or during the three and six months ended June 30, 2020 related to accounts receivable. The Company's allowance for credit losses related to accounts receivable was \$38 thousand as of June 30, 2020 and December 31, 2019, all of which was expensed prior to January 1, 2020.

Contract Assets

The Company records contract assets when it has recognized revenue but has not yet billed the customer. As of January 1, 2020 and June 30, 2020, the Company's outstanding contract asset balance was \$2.8 million and \$1.0 million, respectively, which is included in other receivables on the Condensed Consolidated Balance Sheets as of December 31, 2019 and June 30, 2020. The Company assessed the need for an allowance for credit losses related to its outstanding contract assets as of June 30, 2020 and January 1, 2020 using the historical loss-rate method as well as asset-specific risks. The Company's historical losses related to contract assets receivable have been immaterial as evidenced by historical write-offs due to uncollectability. Asset-specific risk included the evaluation of relevant available information, from internal and external sources, relating to current conditions that may affect a customer's ability to pay once invoiced, such as the customer's financial condition, credit rating by geographic location as provided by a third party and/or by customer, if needed, and overall macro-economic conditions in which the customer operates. The Company pooled assets by geographic location to determine if an allowance should be applied to its contract asset balance, assessing the specific country risk rating and overall economics of that particular country. If elevated risk existed, or customer specific risk indicated the contract balance was at risk, the Company further analyzed the need for an allowance related to specific customer balances. Additionally, the Company determined that significant changes to customer country risk rating from period-to-period and from the end of the prior year to the end of the current quarter would be subject to further review and analysis by the Company.

No allowance for credit loss was recorded on the implementation date or during the three and six months ended June 30, 2020 related to contract assets.

Net Investment in Sales-Type Leases

The Company is the lessor in sales-type lease arrangements for network equipment. As of January 1, 2020 and June 30, 2020, the Company's outstanding net investment in sales-type leases was \$1.6 million and \$1.1 million, respectively, which is included in other receivables and other assets on the Condensed Consolidated Balance Sheets as of December 31, 2019 and June 30, 2020. The Company assessed the need for an allowance for credit losses related to future receivables under its outstanding sales-type leases as of June 30, 2020 and January 1, 2020 using the historical loss-rate method as well as asset-specific risks. The Company's historical losses related to contract assets receivable have been immaterial as evidenced by historical write-offs due to uncollectability. Asset-specific risk included the evaluation of relevant available information, from internal and external sources, relating to current conditions that may affect a customer's ability to pay once invoiced, such as the customer's financial condition, credit rating by geographic location as provided by a third party and/or by customer, if needed, and overall macro-economic conditions in which the customer operates.

The following table presents amortized cost basis in sales-type leases based on payment activity:

(In thousands)	Sales-Type Leases Amortized Cost Basis by Origination Year						Total
	2020	2019	2018	2017	2016	Prior	
Payment performance							
Performing	\$ 43	\$ 261	\$ 500	\$ 187	\$ 127	\$ 14	\$ 1,132
Non-performing	—	—	—	—	—	—	—
Total	<u>\$ 43</u>	<u>\$ 261</u>	<u>\$ 500</u>	<u>\$ 187</u>	<u>\$ 127</u>	<u>\$ 14</u>	<u>\$ 1,132</u>

Sales-type lease receivables are considered past due when payment has not been received based on agreed upon terms between the customer and the Company. No allowance for credit loss was recorded on the implementation date or during the three and six months ended June 30, 2020 related to sales-type leases.

Secured Loan Receivable

The Company has a secured loan receivable totaling \$0.9 million as of June 30, 2020 and January 1, 2020, which originated in February 2019, and is included in long-term investments on the Condensed Consolidated Balance Sheets as of June 30, 2020 and December 31, 2019. The Company assessed the need for an allowance for credit loss related to its secured loan receivable as of June 30, 2020 and January 1, 2020 using the historical loss-rate method as well as asset-specific risks. There have been no historical losses related to this receivable. Asset-specific risks included the evaluation of relevant available information, from internal and external sources, relating to current conditions that may affect the customer's ability to repay the loan upon maturity, such as the customer's current financial condition, credit rating specific to the customer as determined by a third party and current overall economic conditions, as well as a Company valuation prepared by a third party which was based on reasonable and supportable forecasts as provided by management. Accrued interest receivable on the secured loan receivable, which is included in other receivables on the Condensed Consolidated Balance Sheets as of June 30, 2020 and December 31, 2019, totaled \$24 thousand and \$0 as of January 1, 2020 and June 30, 2020, respectively, and was excluded from the estimate of credit losses for both periods based on the Company's accounting policy election.

No allowance for credit loss was recorded on the implementation date or during the three and six months ended June 30, 2020 related to the secured loan receivable.

Off-Balance Sheet Arrangements

The Company did not have any off-balance sheet arrangements as of January 1, 2020 or June 30, 2020.

Available-for-Sale Debt Securities

As of January 1, 2020 and June 30, 2020, the Company's available-for-sale debt securities totaled \$37.7 million and \$42.6 million, respectively. These securities were analyzed at the individual investment level, by CUSIP, to limit credit losses, if applicable, to reflect only the amount by which the fair value of the security was less than its amortized cost. The Company noted that, as of January 1, 2020 and June 30, 2020, there was no intent to sell any of its available-for-sale debt securities before maturity, and, therefore, the Company assessed the need for an allowance for each of its available-for-sale debt securities in which the fair value was less than its amortized cost as of January 1, 2020 and June 30, 2020. Accrued interest receivable on available-for-sale debt securities, which is included in other receivables on the Condensed Consolidated Balance Sheets as of June 30, 2020 and December 31, 2019, totaled \$0.1 million as of January 1, 2020 and June 30, 2020, and was excluded from the estimate of credit losses for both periods based on the Company's accounting policy election. Income generated from available-for-sale debt securities was recorded as interest and dividend income in the Condensed Consolidated Statements of Income (Loss).

The Company had 43 positions in available-for-sale debt securities that were in an unrealized loss position as of June 30, 2020, which are presented in the table below:

<i>(In thousands)</i>	Continuous Unrealized Loss Position for Less than 12 Months		Continuous Unrealized Loss Position for 12 Months or Greater		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
	Corporate bonds	865	(1)	—	—	865
Municipal fixed-rate bonds	—	—	—	—	—	—
Asset-backed bonds	331	(4)	—	—	331	(4)
Mortgage/Agency-backed bonds	1,017	(12)	—	—	1,017	(12)
U.S. government bonds	900	—	—	—	900	—
Foreign government	75	—	—	—	75	—
Commercial paper	—	—	—	—	—	—
Total	\$ 3,188	\$ (17)	\$ —	\$ —	\$ 3,188	\$ (17)

The following table outlines the available-for-sale debt securities in an unrealized loss position as of January 1, 2020:

<i>(In thousands)</i>	Continuous Unrealized Loss Position for Less than 12 Months		Continuous Unrealized Loss Position for 12 Months or Greater		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
	Corporate bonds	203	—	—	—	203
Municipal fixed-rate bonds	930	—	—	—	930	—
Asset-backed bonds	797	(3)	—	—	797	(3)
Mortgage/Agency-backed bonds	2,594	(6)	136	(2)	2,730	(8)
U.S. government bonds	4,070	(9)	—	—	4,070	(9)
Total	\$ 8,594	\$ (18)	\$ 136	\$ (2)	\$ 8,730	\$ (20)

For those available-for-sale debt securities whose fair value was less than its amortized cost basis, the Company analyzed additional criteria such as adverse conditions specifically related to the security, an industry or geographic area, failure of the issuer of the security to make scheduled interest or principal payments, if applicable, and any changes to the rating of the security by a rating agency to determine if a credit loss existed. The Company used information provided by its investment manager to determine if any scheduled interest or principal payments had not been received and used a third party to determine if any changes to credit ratings had occurred. The Company noted that all principal and interest payments had been received as scheduled and that there had been no changes in credit ratings year-over-year or period-over-period that warranted further review.

No allowance for credit loss was recorded on the implementation date or during the three and six months ended June 30, 2020 related to the Company's available-for-sale debt securities.

20. RESTRUCTURING

During the second half of 2019, the Company implemented a restructuring plan to realign its expense structure with the reduction in revenue experienced in recent years and overall Company objectives. Management assessed the efficiency of operations and, in turn, consolidated locations and personnel, among other things, where possible. As part of this restructuring plan, the Company announced plans to reduce its overall operating expenses, both in the U.S. and internationally.

In February 2019, the Company announced the restructuring of a certain portion of its workforce predominantly in Germany, which included the closure of the Company's office location in Munich, Germany accompanied by relocation or severance benefits for the affected employees. Voluntary early retirement was offered to certain other employees, which was announced in March 2019.

A reconciliation of the beginning and ending restructuring liability, which is included in accrued wages and benefits in the Condensed Consolidated Balance Sheets as of June 30, 2020 and December 31, 2019, is as follows:

<i>(In thousands)</i>	Three Months Ended		Six Months Ended	
	June 30, 2020		June 30, 2020	
Balance at beginning of period	\$	133	\$	1,568
Plus: Amounts charged to cost and expense		1,192		1,745
Less: Amounts paid		(967)		(2,955)
Balance as of June 30, 2020	\$	358	\$	358

<i>(In thousands)</i>	December 31, 2019	
	Balance as of December 31, 2018	\$
Plus: Amounts charged to cost and expense		6,014
Less: Amounts paid		(4,631)
Balance as of December 31, 2019	\$	1,568

Restructuring expenses included in the Condensed Consolidated Statements of Income (Loss) were as follows:

<i>(In thousands)</i>	Three Months Ended		Six Months Ended			
	June 30,		June 30,			
	2020	2019	2020	2019		
Selling, general and administrative expenses	\$	489	\$	572	\$	1,547
Research and development expenses		681		647		1,231
Cost of sales		22		56		685
Total restructuring expenses	\$	1,192	\$	1,400	\$	3,463

The following table represents the components of restructuring expense by geographic area:

<i>(In thousands)</i>	Three Months Ended		Six Months Ended					
	June 30,		June 30,					
	2020	2019	2020	2019				
Domestic	\$	1,192	\$	541	\$	1,743	\$	825
International		—		859		2		2,638
Total restructuring expenses	\$	1,192	\$	1,400	\$	1,745	\$	3,463

21. SUBSEQUENT EVENTS

On August 5, 2020, we announced that our Board of Directors declared a quarterly cash dividend of \$0.09 per common share to be paid to the Company's stockholders of record as of the close of business on August 20, 2020. The payment date will be September 3, 2020 in the aggregate amount of approximately \$4.3 million.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read in conjunction with the consolidated financial statements and the related notes that appear in Part I, Item 1 of this document. In addition, the following discussion should be read in conjunction with our audited consolidated financial statements for the year ended December 31, 2019, Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, Part I, Item 1, Business, and Item 1A, Risk Factors, included in our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 25, 2020 (the "2019 Form 10-K").

This discussion is designed to provide the reader with information that will assist in understanding our condensed consolidated financial statements, the changes in certain key items in those financial statements from period to period, and the primary factors that accounted for those changes, as well as how certain accounting principles affect our condensed consolidated financial statements. See "Cautionary Note Regarding Forward-Looking Statements" on page 3 of this report for a description of important factors that could cause actual results to differ from expected results. See also Part I, Item 1A, Risk Factors, of the 2019 Form 10-K and Part II, Item 1A, Risk Factors, of this Form 10-Q.

OVERVIEW

ADTRAN is a leading global provider of networking and communications solutions focused on the access market, serving a diverse domestic and international customer base in multiple countries that includes Tier-1, -2 and -3 service providers, cable/MSOs and distributed enterprises. Our innovative solutions and services enable voice, data, video and internet communications across a variety of network infrastructures and are currently in use by millions worldwide. We support our customers through our direct global sales organization and our distribution networks. Our success depends upon our ability to increase unit volume and market share through the introduction of new products and succeeding generations of products having lower selling prices and increased functionality as compared to both the prior generation of a product and to the products of competitors. In order to service our customers and grow revenue, we are constantly conducting research and development of new products addressing customer needs and testing those products for the particular specifications of the particular customers. We are focused on being a top global supplier of access infrastructure and related value-added solutions from the cloud edge to the subscriber edge. We offer a broad portfolio of flexible software and hardware network solutions and services that enable service providers to meet today's service demands, while enabling them to transition to the fully-converged, scalable, highly-automated, cloud-controlled voice, data, internet and video network of the future. In addition to our corporate headquarters in Huntsville, Alabama, we have research and development facilities in strategic global locations.

An important part of our strategy is to reduce the cost of each succeeding product generation and then lower the product's selling price based on the cost savings achieved in order to gain market share and/or improve gross margins. As a part of this strategy, we seek to be a high-quality and low-cost provider of products in our markets. Our success to date is attributable in large measure to our ability to design our products initially with a view to their subsequent redesign, allowing both increased functionality and reduced manufacturing costs in each succeeding product generation. This strategy enables us to sell succeeding generations of products to existing customers, while increasing our market share by selling these enhanced products to new customers.

We ended the second quarter of 2020 with a decrease in revenue of 17.7% for the three months ended June 30, 2020 as compared to the three months ended June 30, 2019, mainly driven by the reduction in spending from a Tier-1 customer in Latin America and a slow-down in spending from a Tier-1 customer in Europe, partially offset by growth in the U.S. and the Asia Pacific region. Additionally, in the second quarter of 2020, we had two 10% revenue customers geographically diversified, with one in the U.S. and one in Europe. Our domestic revenue grew 12.2% during the three months ended June 30, 2020 compared to the same quarter in the prior year, which was driven by growth in both Tier-2 and Tier-3 carrier categories due to additional fiber access deployments in both access equipment and CPE. In Europe, our revenue was down 12.8% compared to the same quarter in the prior year, primarily driven by a slow-down in spending from a Tier-1 customer. In the Asia Pacific region, we experienced growth driven by the acceleration of access network builds. Additionally, fiber access continues to experience revenue growth, and, during the first half of 2020, we announced multiple long-term Tier-1 next-generation fiber access deals in Europe and the U.S., positioning us well for the next access network upgrade investment cycle.

During the first half of 2020, there was a downturn in the global financial markets followed by a gradual rebound and a slowdown in the global economy due to the COVID-19 pandemic. In March 2020, the World Health Organization declared the outbreak of COVID-19 a pandemic. COVID-19 continues to spread throughout the U.S. and the world and has resulted in authorities implementing numerous measures to contain the virus, including travel bans and restrictions, quarantines, shelter-in-place orders, and business limitations and shutdowns. While we are unable to accurately predict the full impact that COVID-19 will have on our results of operations, financial condition, liquidity and cash flows due to numerous uncertainties, including the duration and severity of the pandemic and containment measures, our compliance with these measures has impacted our day-to-day operations and could disrupt our business and operations, as well as that of our key customers, suppliers and other counterparties, for an indefinite period of time. We have experienced some impact to our supply chain, including a slowdown in supply chain deliveries, extended lead times on some key components and some raw material cost increases. In addition, we have experienced significant increases in freight-related costs. While throughout the pandemic, we have seen increased demand in networking requirements and utilization due to social distancing guidelines issued by governments, as well as COVID-19 related reductions in travel and infrastructure expenses, it is possible that we could experience some slowdown in demand and further supply chain issues as the pandemic continues.

Among our customers, we made progress with our fiber and fiber-extension solutions, including PON and Gfast, while also continuing to engage various Services & Support opportunities that we expect will contribute in 2020 and beyond. In addition, we believe that we are at the beginning of a significant investment cycle for fiber deployment driven by technology advancements and regulatory influences. The transition to next-generation network architectures is beginning, and we are seeing demand for our next-generation SD-Access solutions. In 2021, we anticipate that payments to service providers under government funding programs such as the FCC Rural Digital Opportunity Fund will begin.

In addition to classifying our operations into two reportable segments, we report revenue across three categories of products and services – (1) Access & Aggregation, (2) Subscriber Solutions & Experience and (3) Traditional & Other Products.

Our Access & Aggregation solutions are used by CSPs to connect their network infrastructure to subscribers. This revenue category includes hardware- and software-based products and services that aggregate and/or originate access technologies. ADTRAN solutions within this category include a wide array of modular or fixed platforms designed to deliver the best technology and economy based on subscriber density and environmental conditions.

Our Subscriber Solutions & Experience portfolio is used by service providers to terminate their infrastructure at the customer's premises while providing an immersive and interactive experience for the subscriber. These solutions include copper and fiber WAN termination, LAN switching, Wi-Fi access, and cloud software services, for both residential and business markets.

Our Traditional & Other Products category generally includes a mix of prior-generation technologies' products and services, as well as other products and services that do not fit within the other revenue categories.

Our operating results have fluctuated, and may continue to fluctuate, on a quarterly basis due to a number of factors, including customer order activity and backlog. A substantial portion of our shipments in any fiscal period relates to orders received and shipped within that fiscal period for customers under agreements containing non-binding purchase commitments. Further, a significant percentage of orders require delivery within a few days. These factors normally result in a varying order backlog and limited order flow visibility. Additionally, backlog levels may vary because of seasonal trends, the timing of customer projects, and other factors that affect customer order lead times. Because many of our customers require prompt delivery of products, we are required to maintain sufficient inventory levels to satisfy anticipated customer demand. If near-term demand for our products declines, or if potential sales in any quarter do not occur as anticipated, our financial results could be adversely affected. Operating expenses are relatively fixed in the short term; therefore, a shortfall in quarterly revenues could significantly impact our financial results in a given quarter.

Our operating results may also fluctuate as a result of a number of other factors, including a decline in general economic and market conditions, specifically the decline that has resulted from the COVID-19 pandemic, foreign currency exchange rate movements, increased competition, customer order patterns, changes in product and services mix, timing differences between price decreases and product cost reductions, product warranty returns, expediting costs, tariffs and announcements of new products by us or our competitors. Additionally, maintaining sufficient inventory levels to assure prompt delivery of our products increases the amount of inventory that may become obsolete and increases the risk that the obsolescence of this inventory may have an adverse effect on our business and operating results. Also, not maintaining sufficient inventory levels to assure prompt delivery of our products may cause us to incur expediting costs to meet customer delivery requirements, which may negatively impact our operating results in a given quarter. During 2019, the Company implemented restructuring plans to realign its expense structure with the reduction in revenue experienced in recent years and with overall Company objectives. Management assessed the efficiency of our operations and consolidated locations and personnel, among other things, and has implemented certain cost savings initiatives, where possible. We expect to continue to see a reduction in our operating expenses and cost of sales, both in the U.S. and internationally, as a result of our implementation of these restructuring plans.

Our historical financial performance is not necessarily a meaningful indicator of future results, and, in general, management expects that our financial results may vary from period to period. Factors that could materially affect our business, financial condition or operating results are included in Part I, Item 1A of the 2019 Form 10-K and in Part II, Item 1A of this Form 10-Q.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

There have been no material changes to our critical accounting policies and estimates from those disclosed in our 2019 Form 10-K.

EFFECT OF RECENT ACCOUNTING PRONOUNCEMENTS

See Note 1 of the Notes to Condensed Consolidated Financial Statements included in Part I, Item 1 of this report for a full description of recent accounting pronouncements, including the expected dates of adoption and estimated effects on results of operations and financial condition, which is incorporated herein by reference.

RESULTS OF OPERATIONS – THREE AND SIX MONTHS ENDED JUNE 30, 2020 COMPARED TO THREE AND SIX MONTHS ENDED JUNE 30, 2019

The following table presents selected financial information derived from our Condensed Consolidated Statements of Income (Loss) expressed as a percentage of sales for the periods indicated. Amounts may not foot due to rounding.

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2020	2019	2020	2019
Sales				
Network Solutions	86.5 %	89.0 %	85.8 %	88.3 %
Services & Support	13.5	11.0	14.2	11.7
Total Sales	100.0	100.0	100.0	100.0
Cost of Sales				
Network Solutions	49.8	51.3	47.6	50.3
Services & Support	8.7	7.2	9.2	7.9
Total Cost of Sales	58.5	58.4	56.8	58.1
Gross Profit	41.5	41.6	43.2	41.9
Selling, general and administrative expenses	23.9	21.5	23.6	22.9
Research and development expenses	22.3	20.5	24.1	21.2
Gain on contingency	—	(0.8)	—	(0.4)
Asset impairments	—	—	—	—
Operating Income (Loss)	(4.7)	0.4	(4.5)	(1.9)
Interest and dividend income	0.3	0.4	0.3	0.4
Interest expense	—	(0.1)	—	(0.1)
Net investment gain (loss)	7.7	1.6	(0.4)	2.8
Other income (expense), net	(1.4)	(0.1)	(0.3)	0.2
Income (Loss) Before Income Taxes	1.9	2.2	(4.9)	1.5
Income tax (expense) benefit	(1.3)	0.4	1.1	0.1
Net Income (Loss)	0.6 %	2.6 %	(3.8) %	1.6 %

SALES

Our sales decreased 17.7% from \$156.4 million for the three months ended June 30, 2019 to \$128.7 million for the three months ended June 30, 2020 and decreased 19.0% from \$300.2 million for the six months ended June 30, 2019 to \$243.2 million for the six months ended June 30, 2020. The decrease in sales for the three and six months ended June 30, 2020 was primarily attributable to a \$26.6 million and \$60.5 million decrease in Access & Aggregation sales, respectively, and a \$0.9 million and \$1.8 million decrease in the sales of our Traditional & Other Products, respectively. Additionally, there was a \$0.1 million decrease in Subscriber Solutions & Experience sales for the three months ended June 30, 2020 and a \$5.3 million increase in Subscriber Solutions & Experience sales for the six months ended June 30, 2020.

Network Solutions segment sales decreased 20.0% from \$139.2 million for the three months ended June 30, 2019 to \$111.3 million for the three months ended June 30, 2020 and decreased 21.2% from \$265.0 million for the six months ended June 30, 2019 to \$208.7 million for the six months ended June 30, 2020. The decrease in sales for the three and six months ended June 30, 2020 was primarily attributable to the slowdown in shipments to two Tier-1 customers. For the three months ended June 30, 2020, sales in the Access & Aggregation, Subscriber Solutions & Experience and Traditional & Other Products categories decreased. For the six months ended June 30, 2020, sales in the Access & Aggregation and Traditional & Other Products categories decreased and were partially offset by an increase in Subscriber Solutions & Experience category sales. The decrease in Access & Aggregation sales for the three and six months ended June 30, 2020 was primarily attributable to decreased volume in sales of FTTN products. The decrease in Subscriber Solutions & Experience sales for the three months ended June 30, 2020 was primarily attributable to a decreased volume of SP Business CPE and WiFi access points and infrastructure sales. The increase in Subscriber Solutions & Experience sales for the six months ended June 30, 2020 was primarily attributable to increased volume in sales of SP Business CPE, network termination and fiber CPE. While we expect that revenue from Traditional & Other Products will continue to decline over time, this revenue may fluctuate and continue for years because of the time required for our customers to transition to newer technologies.

Services & Support segment sales increased 1.0% from \$17.2 million for the three months ended June 30, 2019 to \$17.4 million for the three months ended June 30, 2020 and decreased 1.8% from \$35.2 million for the six months ended June 30, 2019 to \$34.5 million for the six months ended June 30, 2020. The increase in sales for the three months ended June 30, 2020 was primarily attributable to increased volume of maintenance services for Subscriber Solutions & Experience products. The decrease in sales for the six months ended June 30, 2019 was primarily attributable to decreased volume of maintenance services for Access & Aggregation products.

International sales, which are included in the amounts for both the Network Solutions and Services & Support segments discussed above, decreased 45.4% from \$81.1 million for the three months ended June 30, 2019 to \$44.3 million for the three months ended June 30, 2020 and decreased 47.6% from \$152.4 million for the six months ended June 30, 2019 to \$79.8 million for the six months ended June 30, 2020. International sales, as a percentage of total sales, decreased from 51.9% for the three months ended June 30, 2019 to 34.4% for the three months ended June 30, 2020 and decreased from 50.8% for the six months ended June 30, 2019 to 32.8% for the six months ended June 30, 2020. The decrease in sales for the three and six months ended June 30, 2020, was primarily attributable the reduction in shipments to two international Tier-1 customers.

Our international revenue is largely focused on broadband infrastructure and is affected by the decisions of our customers as to timing for installation of new technologies, expansion of their networks and/or network upgrades. Our international customers must make these decisions in the regulatory and political environment in which they operate – both nationally and in some instances, regionally – whether of a multi-country region or a more local region within a country. The competitive landscape in certain international markets is also affected by the increased presence of Asian manufacturers that seek to compete aggressively on price. Our revenue and operating income in some international markets have been, and may continue to be, negatively impacted by a strengthening U.S. dollar, adverse changes in trade policy and disruptions in international trade due to the COVID-19 pandemic. Consequently, while we expect the global trend towards deployment of more robust broadband speeds and access to continue creating additional market opportunities for us in the long-run, the factors described above may result in negative pressure on revenue and operating income.

COST OF SALES

As a percentage of sales, cost of sales increased slightly from 58.4% for the three months ended June 30, 2019 to 58.5% for the three months ended June 30, 2020 and decreased from 58.2% for the six months ended June 30, 2019 to 56.8% for the six months ended June 30, 2020. For the six months ended June 30, 2020, the decrease was primarily attributable to changes in customer and product mix, a regional revenue shift, changes in services and support mix and a decrease in fixed personnel costs as a result of our restructuring program initiated in 2019.

Network Solutions cost of sales, as a percentage of that segment's sales, remained flat at 57.6% for the three months ended June 30, 2020 and 2019 and decreased from 57.0% for the six months ended June 30, 2019 to 55.4% for the six months ended June 30, 2020. The decrease in cost of sales as a percentage of sales for the six months ended June 30, 2020 was primarily attributable to changes in customer and product mix, a regional revenue shift and a decrease in fixed personnel costs as a result of our restructuring program initiated in 2019.

An important part of our strategy is to reduce the cost of each succeeding generation of product and then lower the product's selling price based on the cost savings achieved in order to gain market share and/or improve gross margins. This may cause variations in our gross profit percentage due to timing differences between the recognition of cost reductions and the lowering of product selling prices.

Services & Support cost of sales, as a percentage of that segment's sales, decreased from 65.0% for the three months ended June 30, 2019 to 64.2% for the three months ended June 30, 2020 and decreased from 67.2% for the six months ended June 30, 2019 to 65.0% for the six months ended June 30, 2020. The decrease in cost of sales as a percentage of sales for the three and six months ended June 30, 2020 was primarily attributable to customer mix, changes in services and support mix and a decrease in fixed personnel costs as a result of our restructuring program initiated in 2019.

Services & Support revenue is comprised of network planning and implementation, maintenance, support and cloud-based management services, with network planning and implementation being the largest and fastest growing component in the long-term. Compared to our other services, such as maintenance, support and cloud-based management services, our network planning and implementation services typically utilize a higher percentage of internal and subcontracted engineers, professionals and contractors to perform the work for customers. The additional costs incurred to perform these infrastructure and labor-intensive services inherently result in lower average gross margins as compared to maintenance and support services.

As our network planning and implementation revenue grew to become the largest component of our Services & Support segment business, our Services & Support segment gross margins decreased versus those reported when maintenance and support comprised the majority of the business. Further, because the growth in our network planning and implementation services has resulted in our Services & Support segment revenue comprising a larger percentage of our overall revenue, and because our Services & Support segment gross margins are generally below those of the Network Solutions segment, our overall corporate gross margins have declined as that business has continued to grow. Within the Services & Support segment, we do expect variability in gross margins from quarter to quarter based on the mix of the services recognized.

SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

As a percentage of sales, selling, general and administrative expenses increased from 21.5% for the three months ended June 30, 2019 to 23.9% for the three months ended June 30, 2020 and increased from 22.9% for the six months ended June 30, 2019 to 23.6% for the six months ended June 30, 2020. Selling, general and administrative expenses as a percentage of sales will generally fluctuate whenever there is a significant fluctuation in revenue for the periods being compared.

Selling, general and administrative expenses decreased 8.4% from \$33.6 million for the three months ended June 30, 2019 to \$30.8 million for the three months ended June 30, 2020 and decreased 16.5% from \$68.8 million for the six months ended June 30, 2019 to \$57.4 million for the six months ended June 30, 2020. The decrease in selling, general and administrative expenses for the three months ended June 30, 2020 was primarily attributable to lower travel-related expenses and lower labor expense partially due to our restructuring program initiated in 2019, partially offset by increases in costs for deferred compensation and contract services related to an enterprise resource planning implementation project. The decrease in selling, general and administrative expenses for the six months ended June 30, 2020 was primarily attributable to lower labor expense partially due to our restructuring program initiated in 2019, lower deferred compensation costs and reduced travel-related expenses, partially offset by increased contract services related to an enterprise resource planning implementation project.

RESEARCH AND DEVELOPMENT EXPENSES

As a percentage of sales, research and development expenses increased from 20.5% for the three months ended June 30, 2019 to 22.3% for the three months ended June 30, 2020 and increased from 21.2% for the six months ended June 30, 2019 to 24.1% for the six months ended June 30, 2020. Research and development expenses as a percentage of sales will fluctuate whenever there are incremental product development activities or significant fluctuations in revenue for the periods being compared.

Research and development expenses decreased 10.5% from \$32.1 million for the three months ended June 30, 2019 to \$28.7 million for the three months ended June 30, 2020 and decreased 8.1% from \$63.7 million for the six months ended June 30, 2019 to \$58.6 million for the six months ended June 30, 2020. The decrease in research and development expenses for the three and six months ended June 30, 2020 was primarily attributable to lower labor expense and other expenses which were mainly the result of our restructuring program initiated in 2019, partially offset by increased contract services costs.

We expect to continue to incur research and development expenses in connection with our new and existing products. We continually evaluate new product opportunities and engage in significant research and product development efforts, which provides for new product development, enhancement of existing products and product cost reductions. We may incur significant research and development expenses prior to the receipt of revenue from a major new product group.

GAIN ON CONTINGENCY

Gain on contingency, which was \$1.2 million for the three and six months ended June 30, 2019, relates to the reversal of unearned contingent liabilities which were initially recognized upon the acquisition of SmartRG in the fourth quarter of 2018. There was no gain on contingency recognized during the six months ended June 30, 2020.

ASSET IMPAIRMENTS

Asset impairments, which were \$0.1 million for the six months ended June 30, 2020, relate to the abandonment of certain information technology projects in which we had previously capitalized costs. There were no asset impairments recognized during the six months ended June 30, 2019.

INTEREST AND DIVIDEND INCOME

Interest and dividend income decreased 52.2% from \$0.7 million for the three months ended June 30, 2019 to \$0.3 million for the three months ended June 30, 2020 and decreased 46.5% from \$1.3 million for the six months ended June 30, 2019 to \$0.7 million for the six months ended June 30, 2020. The decrease in interest and dividend income was primarily attributable to a decrease in interest income as a result of a decline in our investment balances mainly due to the maturity of our certificate of deposit which served as collateral for our taxable revenue bonds. Our total investments decreased from \$118.2 million as of June 30, 2019 to \$93.4 million as of June 30, 2020.

INTEREST EXPENSE

Interest expense, which is primarily related to our taxable revenue bonds, decreased by \$0.1 million in the three months ended June 30, 2020 compared to the three months ended June 30, 2019 and decreased by \$0.3 million in the six months ended June 30, 2020 compared to the six months ended June 30, 2019. The decrease was due to the fact that the outstanding principal balance of the taxable revenue bonds was paid off upon maturity in January 2020. See “Liquidity and Capital Resources” below for additional information on our revenue bond.

NET INVESTMENT GAIN (LOSS)

We recognized a net investment gain of \$2.5 million and \$9.9 million for the three months ended June 30, 2019 and June 30, 2020, respectively, a net investment gain of \$8.4 million for the six months ended June 30, 2019 and a net investment loss of \$1.0 million for the six months ended June 30, 2020. The fluctuations in our net investments were primarily attributable to changes in the fair value of our securities recognized during the period. During the six months ended June 30, 2020, our investments were impacted by market conditions due to the COVID-19 pandemic, which resulted in a sharp downturn in the markets followed by a gradual rebound. We expect that any future market volatility, whether from COVID-19 or other factors, will result in continued volatility in our investment portfolio. See Note 7 of the Notes to Condensed Consolidated Financial Statements, included in Part I, Item 1 of this report, and “Investing Activities” in “Liquidity and Capital Resources” below for additional information.

OTHER INCOME (EXPENSE), NET

Other income (expense), net increased from expense of \$0.2 million for the three months ended June 30, 2019 to expense of \$1.8 million for the three months ended June 30, 2020 and decreased from income of \$0.7 million for the six months ended June 30, 2019 to expense of \$0.6 million for the six months ended June 30, 2020. For the three and six months ended June 30, 2020, other income, net consisted mainly of gains and losses on foreign currency transactions. For the three and six months ended June 30, 2019, other income, net consisted mainly of the receipt of insurance proceeds from a life insurance policy.

INCOME TAX EXPENSE (BENEFIT)

Our effective tax rate increased from a benefit of 17.3% for the three months ended June 30, 2019 to an expense of 68.5% for the three months ended June 30, 2020 and decreased from a benefit of 6.2% for the six months ended June 30, 2019 to a benefit of 22.9% for the six months ended June 30, 2020. The change in the effective tax rate for the three months ended June 30, 2020 was impacted by tax expense in our international operations and additional changes in the valuation allowance related to our domestic operations. The change in the effective tax rate for the six months ended June 30, 2020 was primarily driven by the impact recorded in the quarter ending March 31, 2020 from the Coronavirus Aid, Relief, and Economic Security (the “CARES Act”) Act signed into law on March 27, 2020, partially offset by tax expense in our international operations and changes in our valuation allowance related to our domestic operations. The change in the effective tax rate for the three and six months ended June 30, 2019 was primarily driven by the shift to profitability for the three and six months ended June 30, 2019, with tax expense being offset by a 29.1% rate reduction related to a transfer pricing study completed during the second quarter of 2019 that resulted in the assignment of operating expenditures to specific Company locations, and the effective income tax rates among the respective jurisdictions. See Note 4 of the Notes to Condensed Consolidated Financial Statements included in Part I, Item 1 of this report for additional information.

NET INCOME (LOSS)

As a result of the above factors, net income (loss) decreased from net income of \$4.0 million for the three months ended June 30, 2019 to net income of \$0.8 million for the three months ended June 30, 2020, and decreased from net income of \$4.8 million for the six months ended June 30, 2019 to a net loss of \$9.2 million for the six months ended June 30, 2020.

LIQUIDITY AND CAPITAL RESOURCES

Liquidity

We have historically financed, and we currently expect to continue to finance, our ongoing business with existing cash, investments and cash flow from operations. We have used, and expect to continue to use, existing cash, investments and cash generated from operations for working capital, business acquisitions, purchases of treasury stock, shareholder dividends and other general corporate purposes, including product development activities to enhance our existing products and develop new products, expansion of our sales and marketing activities and capital expenditures. We believe that our cash and cash equivalents, investments and cash generated from operations to be adequate to meet our operating and capital needs for at least the next 12 months.

As of June 30, 2020, cash on hand was \$69.1 million and short-term investments were \$9.0 million, which resulted in available short-term liquidity of \$78.1 million, of which \$50.0 million was held by our foreign subsidiaries. As of December 31, 2019, cash on hand was \$73.8 million and short-term investments were \$33.2 million, which resulted in available short-term liquidity of \$107.0 million, of which \$52.3 million was held by our foreign subsidiaries. Generally, we intend to permanently reinvest funds held outside the U.S., except to the extent that any of these funds can be repatriated without withholding tax. The decrease in short-term liquidity from December 31, 2019 to June 30, 2020 was primarily attributable to the maturity of a certificate of deposit of \$25.6 million that served as collateral for our revenue bond, which matured in January 2020.

Operating Activities

Our working capital, defined as current assets less current liabilities, remained flat at \$207.6 million as of December 31, 2019 and \$207.7 million as of June 30, 2020, and our current ratio, defined as current assets divided by current liabilities, increased from 2.84 as of December 31, 2019 to 2.94 as of June 30, 2020. The increase in our current ratio was primarily attributable to increases in other receivables, accounts payable, inventory and accounts receivable, partially offset by short-term investments, which consisted of a certificate of deposit related to our taxable revenue bond and the related bonds payable. The quick ratio, defined as cash, cash equivalents, short-term investments, and net accounts receivable, divided by current liabilities, decreased from 1.75 as of December 31, 2019 to 1.62 as of June 30, 2020. The decrease in the quick ratio was primarily attributable to the payment of our bond payable upon maturity in January 2020, partially offset by a decrease in accounts receivable and cash and cash equivalents along with an increase in accounts payable.

Net accounts receivable increased 5.3% from \$90.5 million as of December 31, 2019 to \$95.3 million as of June 30, 2020. Our allowance for doubtful accounts was \$38 thousand as of December 31, 2019 and June 30, 2020. The increase in net accounts receivable was due to an increase in sales volume in the second quarter of 2020 as compared to the fourth quarter of 2019. Quarterly accounts receivable DSO decreased from 72 days as of December 31, 2019 to 67 days as of June 30, 2020. The decrease in DSO was due to the timing of product shipments and customer mix.

Other receivables increased 57.1% from \$16.6 million as of December 31, 2019 to \$26.0 million as of June 30, 2020. The increase in other receivables was primarily attributable to increases in income tax receivables related to the CARES Act and purchasing shipments partially offset by a decrease in contract assets.

Quarterly inventory turnover increased from 2.7 turns as of December 31, 2019 to 2.9 turns as of June 30, 2020. Inventory increased 8.0% from \$98.3 million as of December 31, 2019 to \$106.1 million as of June 30, 2020. In addition to COVID-19 uncertainties related to supply chain and demand, we expect inventory levels to fluctuate as we attempt to maintain sufficient inventory in response to seasonal cycles of our business and ensuring competitive lead times while managing the risk of inventory.

Accounts payable increased 39.2% from \$44.9 million as of December 31, 2019 to \$62.5 million as of June 30, 2020. Accounts payable will fluctuate due to variations in the timing of the receipt of supplies, inventory and services and our subsequent payments for these purchases.

Investing Activities

Capital expenditures totaled approximately \$3.1 million and \$4.3 million for the six months ended June 30, 2020 and 2019, respectively. These expenditures were primarily used to purchase manufacturing and test equipment, software, computer hardware and to finance building improvements.

Our combined short-term and long-term investments decreased \$34.3 million from \$127.7 million as of December 31, 2019 to \$93.4 million as of June 30, 2020. This decrease reflects the maturity of a certificate deposit which served as collateral for our revenue bond and the impact of net realized and unrealized gains and losses on our investments.

We typically invest all available cash not required for immediate use in operations, primarily in securities that we believe bear minimal risk of loss. See Note 7 of the Notes to Condensed Consolidated Financial Statements included in Part I, Item 1 of this report for additional information. As of June 30, 2020, our corporate bonds, municipal bonds, asset-backed bonds, mortgage/agency bonds, U.S. government bonds, other government bonds and variable-rate demand notes were classified as available-for-sale and had a combined duration of 1.54 years with an average Standard & Poor's credit rating of AA. Because our investment portfolio has a high-quality rating and contractual maturities of short duration, we are able to obtain prices for these bonds derived from observable market inputs, or for similar securities traded in an active market, on a daily basis.

Our long-term investments decreased 10.7% from \$94.5 million as of December 31, 2019 to \$84.4 million as of June 30, 2020. Our investments include various marketable equity securities classified as long-term investments with a fair market value of \$26.1 million and \$35.8 million as of June 30, 2020 and December 31, 2019, respectively. Long-term investments as of June 30, 2020 and December 31, 2019 also included \$20.5 million and \$21.7 million, respectively, related to our deferred compensation plans, and \$0.3 million, for both years, of other investments, consisting of interests in a private equity fund.

Financing Activities

Dividends

In July 2003, our Board of Directors elected to begin declaring quarterly dividends on our common stock considering the tax treatment of dividends and adequate levels of Company liquidity. During the six months ended June 30, 2020 and 2019, we paid dividends totaling \$8.7 million and \$8.6 million, respectively. The continued payment of dividends is at the discretion of the Company's Board of Directors and is subject to general business conditions and ongoing financial results of the Company.

Debt

In conjunction with the 1995 expansion of our Huntsville, Alabama, facility, we were approved for participation in an incentive program offered by the State of Alabama Industrial Development Authority (the "Authority"). Pursuant to the program, in January 1995, the Authority issued \$20.0 million of its taxable revenue bonds and loaned the proceeds from the sale of these taxable revenue bonds to the Company. Further advances on the taxable revenue bonds were made by the Authority, bringing the total amount outstanding to \$50.0 million. The bonds matured on January 1, 2020, and the outstanding balance of \$24.6 million was repaid in full on January 2, 2020. The Company had no outstanding debt as of June 30, 2020.

Stock Repurchase Program

Since 1997, our Board of Directors has approved multiple share repurchase programs that have authorized repurchases of our common stock, which are implemented through open market or private purchases from time to time as conditions warrant. We currently have authorization to repurchase an additional 2.5 million shares of our common stock under the current authorization of up to 5.0 million shares. During the six months ended June 30, 2020 there were no common stock repurchases. During the six months ended June 30, 2019, we repurchased 13,000 shares of our common stock for \$0.2 million at an average price of \$14.06 per share.

Off-Balance Sheet Arrangements and Contractual Obligations

We do not have off-balance sheet financing arrangements and have not engaged in any related party transactions or arrangements with unconsolidated entities or other persons that are reasonably likely to materially affect liquidity or the availability of or requirements for capital resources.

Certain contracts, customers and jurisdictions in which we do business require us to provide various guarantees of performance such as bid bonds, performance bonds and customs bonds. As of June 30, 2020 and December 31, 2019, we had commitments related to these bonds totaling \$11.3 million and \$9.3 million, respectively, which expire at various dates through August 2024. Although the triggering events vary from contract to contract, in general we would only be liable for the amount of these guarantees in the event of default under each contract, the probability of which we believe is remote.

In June of 2020, the Company entered into a letter of credit with a bank to guarantee performance obligations under a contract with a customer. The letter of credit is secured by a pledge of collateral in the amount of \$5.0 million, of which \$1.2 million is included in restricted cash and \$3.8 million is included in long-term investments on the Condensed Consolidated Balance Sheet as of June 30, 2020. Currently, the Company is required to maintain a minimum collateral value of approximately \$5.0 million. The minimum collateral value will increase over time as the Company reaches certain milestones in the contract. The maximum collateral value required under the contract will be approximately \$12.0 million, and this is expected to occur in February 2021. This minimum collateral value will increase further if the Company changes the mix of investments away from restricted cash and into other investments. Any shortfalls in the minimum collateral value are required to be restored by the Company from available cash and cash equivalents, short-term investments or long-term investments. The obligations under the customer contract will be performed over multiple years. The collateral under the letter of credit will be released when all obligations under the customer contract have been met. As of June 30, 2020, the Company was in compliance with all contractual requirements under the letter of credit.

We have committed to invest up to an aggregate of \$5.0 million in a private equity fund of which \$4.9 million has been contributed as of June 30, 2020.

During the six months ended June 30, 2020, there have been no other material changes in contractual obligations and commercial commitments out of the normal course of business from those discussed in the 2019 Form 10-K.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to financial market risks, including changes in foreign currency rates, prices of marketable equity and fixed-income securities. In addition, the ongoing global pandemic raises the possibility of an extended economic downturn and has caused volatility in financial markets. The primary objective of the large majority of our investment activities is to preserve principal while at the same time achieving appropriate yields without significantly increasing risk. To achieve this objective, a majority of our marketable securities are investment grade, fixed-rate bonds and municipal money market instruments denominated in U.S. dollars. Our investment policy provides limitations for issuer concentration, which limits, at the time of purchase, the concentration in any one issuer to 5% of the market value of our total investment portfolio.

We maintain depository investments with certain financial institutions. Although these depository investments may exceed government insured depository limits, we have evaluated the credit-worthiness of these financial institutions, and determined the risk of material financial loss due to exposure of such credit risk to be minimal. As of June 30, 2020, \$68.0 million of our cash and cash equivalents, primarily certain domestic money market funds and foreign depository accounts, were in excess of government provided insured depository limits.

As of June 30, 2020, approximately \$44.6 million of our cash and investments may be directly affected by changes in interest rates. As of June 30, 2020, we held \$4.9 million of cash and variable-rate investments where a change in interest rates would impact our interest income. A hypothetical 50 basis point decline in interest rates as of June 30, 2020, assuming all other variables remain constant, would reduce annualized interest income on our cash and investments by approximately \$16 thousand. In addition, we held \$39.6 million of fixed-rate bonds whose fair values may be directly affected by a change in interest rates. A hypothetical 50 basis point increase in interest rates as of June 30, 2020, assuming all other variables remain constant, would reduce the fair value of our fixed-rate bonds by approximately \$0.3 million.

We are exposed to changes in foreign currency exchange rates to the extent that such changes affect our revenue and gross margin on revenue derived from some international customers, expenses, and assets and liabilities held in non-functional currencies related to our foreign subsidiaries. Our primary exposures to foreign currency exchange rate movements are with our German subsidiary, whose functional currency is the Euro, and our Australian subsidiary, whose functional currency is the Australian dollar. Our revenue is primarily denominated in the respective functional currency of the subsidiary and paid in that subsidiary's functional currency or certain other local currency, our global supply chain predominately invoices us in the respective functional currency of the subsidiary and is paid in U.S. dollars and some of our operating expenses are invoiced and paid in certain local currencies (approximately 9% and 10% of total operating expense for the three and six months ended June 30, 2020, respectively). Therefore, our revenues, gross margins, operating expense and operating income are all subject to foreign currency fluctuations. As a result, changes in currency exchange rates could cause variations in our operating income.

We have certain customers and suppliers who are invoiced or pay in a non-functional currency. Changes in the monetary exchange rates used to invoice such customers versus the functional currency of the entity billing such customers may adversely affect our results of operations and financial condition. To manage the volatility relating to these typical business exposures, we may enter into various derivative transactions, when appropriate. We do not hold or issue derivative instruments for trading or other speculative purposes. All non-functional currencies billed would result in a combined hypothetical gain or loss of \$2.1 million if the U.S. dollar weakened or strengthened 10% against the billing currencies. This change represents a decrease in the amount of hypothetical gain or loss compared to prior periods and is mainly due to a decrease in U.S. dollar denominated billings in a non-U.S. dollar denominated subsidiary. Although we do not currently hold any derivative instruments, any gain or loss would be partially mitigated by any derivative instruments held.

As of June 30, 2020, we had certain material contracts subject to currency revaluation, including accounts receivable, accounts payable and lease liabilities, denominated in foreign currencies. As of June 30, 2020, we did not have any forward contracts outstanding.

For further information about the fair value of our investments as of June 30, 2020, see Note 7 of the Notes to Condensed Consolidated Financial Statements included in Part I, Item 1 of this report.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to provide reasonable assurance that the information required to be disclosed by us in reports that we file or submit under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), is recorded, processed, summarized and reported within the time periods specified in the rules and forms promulgated by the SEC, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. Because of the inherent limitations to the effectiveness of any system of disclosure controls and procedures, no evaluation of disclosure controls and procedures can provide absolute assurance that all control issues, if any, with a company have been prevented or detected on a timely basis. Even disclosure controls and procedures determined to be effective can only provide reasonable assurance that their objectives are achieved.

As of the end of the period covered by this report, an evaluation was carried out by management, including our Chief Executive Officer and our Chief Financial Officer, of the effectiveness of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Exchange Act. Based on that evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level.

Remediation of Previously Identified Material Weakness in Internal Control over Financial Reporting

The Company has redesigned, enhanced and added controls and procedures related to the review of significant inputs and assumptions used to determine our excess and obsolete inventory reserve, and to ensure the completeness and accuracy of key reports and related data used in the calculation of the excess and obsolete inventory reserve. Key reports and calculations have been redesigned and fully integrated into our enterprise resource planning system to ensure the completeness and accuracy of significant inputs. New controls and procedures have also been established by the Company around the estimated reserve percentages used in establishing the excess and obsolete inventory reserve that consider historical usage, known trends, inventory age and market conditions of the inventory. As a result of these remediation efforts, management has determined that, as of June 30, 2020, our controls related to our estimated reserve for excess and obsolete inventory were effectively designed, documented and maintained, and the material weakness related to these controls no longer existed.

Changes in Internal Control over Financial Reporting.

Except as noted above, there were no changes in our internal control over financial reporting that occurred during the fiscal quarter ended June 30, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

Securities Class Action Lawsuit

On October 17, 2019, a purported stockholder class action lawsuit, captioned *Burbridge v. ADTRAN, Inc. et al.*, Docket No. 19-cv-09619, was filed in the United States District Court for the Southern District of New York against the Company, two of its current executive officers and one of its former executive officers. The complaint alleges violations of federal securities laws and seeks unspecified compensatory damages on behalf of purported purchasers of ADTRAN securities between February 28, 2019 and October 9, 2019. The lawsuit claims that the defendants made materially false and misleading statements regarding, and/or failed to disclose material adverse facts about, the Company's business, operations and prospects, specifically relating to the Company's internal control over financial reporting, excess and obsolete inventory reserves, financial results and demand from certain customers. The lawsuit was transferred to the U.S. District Court for the Northern District of Alabama on January 7, 2020, and co-lead plaintiffs have been appointed to represent the putative class. The plaintiffs filed an amended complaint on April 30, 2020. The defendants filed a motion to dismiss the amended complaint on June 17, 2020. The plaintiffs filed an opposition brief to the defendants' motion to dismiss on July 17, 2020. The defendants intend to file a reply to the plaintiffs' brief on August 17, 2020. We deny the allegations in the complaint, as amended, and intend to vigorously defend against this lawsuit. At this time, we are unable to predict the outcome of or estimate the possible loss or range of loss, if any, associated with this lawsuit.

Shareholder Derivative Lawsuit

On March 31, 2020, a shareholder derivative suit, captioned *Johnson (Derivatively on behalf of ADTRAN) v. T. Stanton, M. Foliano, R. Shannon, and Board of Directors*, case no. 5:20-cv-00447, was filed in the U.S. District Court of Northern Alabama against two of the Company's current executive officers, one of its former executive officers and its Board of Directors. The derivative suit, which is purportedly brought on behalf of ADTRAN, makes similar allegations as the shareholder class action and accuses the directors and officers of breaches of fiduciary duty in connection with those allegations. On June 7, 2020, the Court entered an order staying the derivative litigation pending resolution of the motion to dismiss in the securities class action. The Company and its defendants disagree with the claims made in the complaint, and the defendants intend to vigorously defend against this lawsuit. At this time, we are unable to predict the outcome of or estimate the possible loss or range of loss, if any, associated with this lawsuit.

ITEM 1A. RISK FACTORS

A list of factors that could materially affect our business, financial condition or operating results is described in Part I, Item 1A, "Risk Factors" in the 2019 Form 10-K. There have been no material changes to our risk factors from those disclosed in Part I, Item 1A, "Risk Factors" in the 2019 Form 10-K, other than as described in the risk factors below.

The ongoing COVID-19 pandemic could adversely affect our business, results of operations and financial condition.

In March 2020, the World Health Organization declared the outbreak of COVID-19 a pandemic. COVID-19 continues to spread throughout the U.S. and the world and has resulted in authorities implementing numerous measures to contain the virus, including travel bans and restrictions, quarantines, shelter-in-place orders, and business limitations and shutdowns. While we are unable to accurately predict the full impact that COVID-19 will have on our results from operations, financial condition, liquidity and cash flows due to numerous uncertainties, including the duration and severity of the pandemic and containment measures, our compliance with these measures has impacted, and may continue to impact, our day-to-day operations and could continue to disrupt our business and operations, as well as that of our customers, suppliers (including contract manufacturers) and other counterparties, for an indefinite period of time. We have experienced, and may continue to experience, disruptions in our supply chain, including a slow-down in supply chain deliveries and some raw material and freight-related cost increases as a result of the pandemic.

To support the health and well-being of our employees, customers, partners and communities, a vast majority of our employees are working remotely as of August 7, 2020. In addition, many of our customers, suppliers and other counterparties are working remotely, which may delay the timing of some orders and expected deliveries. The disruptions to our operations caused by COVID-19 may result in inefficiencies, delays and additional costs in our product development, sales, marketing and customer service efforts that we cannot fully mitigate through remote or other alternative work arrangements. These additional costs may be partially offset by reduced travel expenses as a result of travel restrictions that we have in place, as well as lower marketing-related costs.

More generally, the global pandemic raises the possibility of an extended economic downturn and has caused volatility in financial markets, which could affect demand for our products and services and impact our results and financial condition even after the pandemic is contained and the shelter-in-place orders are lifted. For example, we may be unable to collect receivables from those customers significantly impacted by COVID-19. Also, a decrease in orders could negatively affect our revenues in future periods, particularly if experienced on a sustained basis.

Although we expect that current cash and cash equivalent balances and cash flows that are generated from operations will be sufficient to meet our domestic and international working capital needs and other capital and liquidity requirements for at least the next 12 months, if our access to capital is restricted or our borrowing costs increase as a result of the COVID-19 pandemic, our operations and financial condition could be adversely impacted.

Moreover, the impacts of the COVID-19 pandemic may exacerbate other pre-existing risks, such as political, regulatory, social, financial, operational and cybersecurity risks, and those associated with global economic conditions, any of which could have a material adverse effect on our business.

We will continue to evaluate the nature and extent of the impact of COVID-19 on our business.

We are subject to complex and evolving U.S. and foreign laws and regulations regarding privacy, data protection and other matters. Violations of these laws and regulations may harm our business.

A wide variety of provincial, state, national and international laws and regulations apply to the collection, use, retention, protection, disclosure, transfer and other processing of data, including personal data. Foreign data protection, privacy and other laws and regulations, including the EU’s General Data Protection Regulation (the “GDPR”), are often more restrictive than those in the U.S. These data protection and privacy-related laws and regulations are varied, evolving, can be subject to significant change, may be augmented or replaced by new or additional laws and regulations and may result in ever-increasing regulatory and public scrutiny and escalating levels of enforcement and sanctions. For example, California’s Consumer Privacy Act became effective in January 2020, providing new data privacy rights for consumers and new operational requirements for companies, and, on July 16, 2020, the Court of Justice of the European Union issued a decision that invalidated the EU-U.S. Privacy Shield framework as a basis for transfers of personal data from the EU to the U.S., resulting in uncertainty and potential additional compliance obligations to ensure that a valid basis under the GDPR exists for these data transfers. New and changing laws, regulations and industry practices regarding our employees’ and users’ data could require us to modify our business, products or services offered, potentially in a material manner, and may limit our ability to develop new products, services and features. There is also a risk that we, directly or as the result of a third-party service provider we use, could be found to have failed to comply with the laws and regulations applicable in a jurisdiction regarding the collection, consent, handling, transfer or disposal of personal data. If we violate these laws and regulations, governmental authorities in the U.S., the EU and elsewhere could seek to impose civil and/or criminal fines and penalties which could have an adverse effect on our reputation, as well as, our results of operations, financial condition and cash flows.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

The following table sets forth repurchases of our common stock for the months indicated:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs ⁽¹⁾	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs
April 1, 2020 – April 30, 2020	—	\$ —	—	2,545,430
May 1, 2020 – May 31, 2020	—	\$ —	—	2,545,430
June 1, 2020 – June 30, 2020	—	\$ —	—	2,545,430
Total	—	—	—	—

- (1) Since 1997, the Company’s Board of Directors has approved multiple share repurchase programs that have authorized open market repurchase transactions of the Company’s common stock, which are implemented through open market or private purchases from time to time as conditions warrant. We currently have authorization to repurchase an additional 2.5 million shares of our common stock under the current authorization of up to 5.0 million shares.

ITEM 6. EXHIBITS

Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
3.1	Certificate of Incorporation, as amended (Exhibit 3.1 to ADTRAN's Registration Statement on Form S-1, No. 33-81062) (P)
3.2	Bylaws, as Amended, of ADTRAN, Inc. (Exhibit 3.1 to ADTRAN's Form 8-K filed July 23, 2020)
10.1*	ADTRAN, Inc. 2020 Employee Stock Incentive Plan
10.2*	ADTRAN, Inc. 2020 Directors Stock Plan
10.3	Separation Agreement and General Release between ADTRAN, Inc. and Jeffery F. McInnis dated as of May 11, 2020 (Exhibit 10.1 to ADTRAN's Form 8-K filed May 11, 2020)
31*	Rule 13a-14(a)/15d-14(a) Certifications
32*	Section 1350 Certifications
101*	The following financial statements from the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2020, formatted in Inline XBRL: (i) Condensed Consolidated Balance Sheets as of June 30, 2020 and December 31, 2019; (ii) Condensed Consolidated Statements of Income (Loss) for the three and six months ended June 30, 2020 and 2019; (iii) Condensed Consolidated Statements of Comprehensive Income (Loss) for the three and six months ended June 30, 2020 and 2019; (iv) Condensed Consolidated Statements of Changes in Stockholders' Equity for the three and six months ended June 30, 2020 and 2019; (v) Condensed Consolidated Statements of Cash Flows for the six months ended June 30, 2020 and 2019; and (vi) Notes to Consolidated Financial Statements
104*	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Filed herewith

(P) Indicates a paper filing with the SEC.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ADTRAN, Inc.
(Registrant)

Date: August 7, 2020

/s/ Michael Foliano

Michael Foliano

Senior Vice President of Finance and
Chief Financial Officer

(Duly Authorized Officer and Principal Financial Officer)

ADTRAN, INC.

2020 EMPLOYEE STOCK INCENTIVE PLAN

effective May 13, 2020

ADTRAN, INC.
2020 EMPLOYEE STOCK INCENTIVE PLAN

ARTICLE I
PLAN INFORMATION

1.1 Background. ADTRAN, Inc. (the “*Company*”) hereby adopts this new equity incentive plan for the benefit of its employees to replace certain Prior Plans; provided, however, that notwithstanding that replacement, the Prior Plans shall remain in effect with respect to outstanding awards as long as the awards thereunder are outstanding. This new plan shall be known as the ADTRAN, Inc. 2020 Employee Stock Incentive Plan (the “*Plan*”).

1.2 General Purpose. The purpose of the Plan is to further the growth and development of the Company by offering employees and key service providers and advisors of the Company and its Subsidiaries the opportunity to own a proprietary interest in the Company. The Company intends that the Plan will provide such individuals with an added incentive to continue in the employ and/or service, promote the growth, efficiency and profitability, and help to attract outstanding individuals to the service, of the Company and its Subsidiaries.

1.3 Types of Awards Available Under the Plan. The Plan permits Awards of Stock Options, Stock Appreciation Rights (“*SARs*”), Restricted Stock, and Restricted Stock Units (“*RSUs*”). The types of Stock Options permitted under the Plan are incentive stock options (“*ISOs*”) and nonqualified stock options (“*NQSOs*”).

1.4 Intended Tax Effects of Awards. The Company intends that ISOs granted under the Plan qualify as incentive stock options under Code Section 422. Restricted Stock Awards are subject to taxation under Code Section 83. Nonqualified Stock Options and Stock Appreciation Rights are subject to taxation when the Nonqualified Stock Option or Stock Appreciation Right is exercised. Restricted Stock Units are subject to taxation when the underlying shares of Common Stock are issued to the Participant.

1.5 Effective Date of the Plan. The Plan shall be effective on the date of its approval by the shareholders of the Company at the 2020 annual meeting of shareholders (the “*Effective Date*”) in accordance with applicable law (including, without limitation, approvals required under Rule 16b-3 and Code Section 422) and any registration or stock exchange rule. Notwithstanding the above, any Stock Option that is designated as an Incentive Stock Option shall automatically be treated as a Nonqualified Stock Option if the Plan is not approved by the shareholders of the Company within twelve (12) months after the Effective Date of the Plan and no Restricted Stock Award shall be granted prior to approval by the Company’s shareholders.

1.6 Term. Unless earlier terminated by the Board pursuant to the provisions of Article IX hereof, the Plan shall remain in effect until the tenth (10th) anniversary of the Effective Date; provided, however, that notwithstanding its termination, the Plan shall remain in effect with respect to outstanding Awards as long as any Awards are outstanding.

1.7 Operation, Administration and Definitions. The operation and administration of the Plan are subject to the provisions of this Plan document. Capitalized terms used in the Plan are defined in Article II below or may be defined within the Plan.

1.8 Legal Compliance. The Plan is intended to comply with (a) the requirements for ISOs under Code Section 422, (b) Code Section 409A, to the extent any Awards are treated as nonqualified deferred compensation under Code Section 409A, and (c) the exemption of Awards under the provisions of Rule 16b-3.

ARTICLE II PLAN DEFINITIONS

The following words and phrases as used in this Plan shall have the meanings set forth in this Article unless a different meaning is clearly required by the context:

2.1 “*Affiliate*” means an entity that, directly or indirectly, controls, is controlled by, or is under common control with the Company, within the meaning of Rule 12b-2 of the Exchange Act.

2.2 “*Award*” means any award or benefit granted to Participant under the Plan, including, without limitation, the grant of Stock Options, Stock Appreciation Rights, Restricted Stock and/or Restricted Stock Units.

2.3 “*Award Agreement*” means the written (or electronic) agreement issued by the Company to the Participant that sets forth the terms and provisions of the Award granted under the Plan.

2.4 “*Base Value*” means the per share base price of a Stock Appreciation Right.

2.5 “*Beneficiary*” means, with respect to a Participant, the person(s) to whom the Participant’s Award shall be transferred upon the Participant’s death, determined as set forth in Section 10.1.

2.6 “*Board*” or “*Board of Directors*” means the Board of Directors of the Company.

2.7 “*Cause*” means, as defined in such Participant’s employment, severance or similar agreement (if any) with the Company or an Affiliate if such an agreement exists as of the Participant’s Separation from Service and contains a definition of cause (or a like term) or, if no such agreement exists or such agreement does not contain a definition of cause (or a like term), then Cause means:

- (a) willful and continued failure to substantially perform his duties with the Company or any Affiliate within ten (10) business days after a written demand for substantial performance is delivered to the Participant which identifies the manner in which the Company or such Affiliate believes that the Participant has not substantially performed his duties;
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- (b) unlawful or willful misconduct which is economically injurious to the Company or to any Affiliate;
- (c) commission of, or a plea of guilty or *nolo contendere* to, a felony charge (other than a traffic violation);
- (d) habitual drug or alcohol abuse that impairs the Participant's ability to perform the essential duties of his position;
- (e) an act of embezzlement or fraud;
- (f) competition with the business of the Company or an Affiliate, either directly or indirectly; or
- (g) a breach of any provision of any employment, confidentiality, intellectual property or non-competition agreement with the Company or an Affiliate, and to the extent curable, such breach is not cured by the Participant within ten (10) business days after a written notice is delivered to the Participant.

Plan: 2.8 “**Change of Control**” means the occurrence of any of the following events on or after the Effective Date of this

- (a) Change in Ownership. A change in the ownership of the Company occurs on the date that any one person, or more than one person acting as a group, acquires ownership of stock of the Company that, together with stock held by such person or group, constitutes more than fifty percent (50%) of the total fair market value or total voting power of the stock of the Company. However, if any one person or more than one person acting as a group, is considered to own more than fifty percent (50%) of the total fair market value or total voting power of the stock of the Company, the acquisition of additional stock by the same person or persons is not considered to cause a change in the ownership of the Company or to cause a change in the effective control of the Company (within the meaning of subsection (b) below). An increase in the percentage of stock owned by any one person, or persons acting as a group, as a result of a transaction in which the Company acquires its stock in exchange for property, will be treated as an acquisition of stock for purposes of this Section. This applies only when there is a transfer of stock of the Company (or issuance of stock of the Company) and stock in the Company remains outstanding after the transaction.
 - (b) Change in Effective Control. A change in the effective control of the Company occurs on the date that either: (1) any one person, or more than one person acting as a group, acquires (or has acquired during the twelve (12) month period ending on the date of the most recent acquisition by such person or persons) ownership of stock of the Company possessing thirty-five percent (35%) or more of the total voting power of the stock of the Company; or (2) a majority of members of the Board is replaced during any twelve (12) month period by directors whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. A change in effective control may
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occur in any transaction in which either of the two corporations involved in the transaction has a Change of Control; or

- (c) Change in Ownership of a Substantial Portion of Assets. A change in the ownership of a substantial portion of the Company's assets shall occur on the date that any one person, or more than one person acting as a group, acquires (or has acquired during the twelve (12) month period ending on the date of the most recent acquisition by such person or persons) assets from the Company that have a total gross fair market value equal to or more than forty percent (40%) of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions. For this purpose, gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets.

Notwithstanding the foregoing, if it is determined that an Award hereunder is subject to Code Section 409A, the Company will not be deemed to have undergone a Change of Control unless the Company is deemed to have undergone a "change in ownership," a "change in effective control," or a "change in the ownership of a substantial portion of the assets," within the meaning of Code Section 409A.

2.9 "Code" means the Internal Revenue Code of 1986, as amended. A reference to any provision of the Code includes any regulations and formal guidance issued thereunder and any reference to any successor provision of the Code.

2.10 "Committee" means the committee appointed by the Board pursuant to Section 3.2 hereof to administer and interpret the Plan in accordance with Article III. The Committee shall (a) consist of two or more individuals each of whom shall be, to the extent required by Rule 16b-3, a "non-employee director" as defined in Rule 16b-3, and (b) satisfy the applicable requirements of any stock exchange or national market system on which the Common Stock may then be listed.

2.11 "Common Stock" means the common stock of the Company, par value \$0.01 per share.

2.12 "Company" means ADTRAN, Inc., a Delaware corporation, and any successor thereto.

2.13 "Disability" means a Participant is unable to engage in any substantial gainful activity by reason of any medically-determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than twelve (12) months. A Participant shall be considered disabled only if he furnishes such proof of Disability as the Committee may reasonably require from time to time.

2.14 "Effective Date" means the effective date of this Plan, subject to shareholder approval as provided in Section 1.5.

2.15 "Employee" means any common law employee of the Company or a Subsidiary who is actively employed at the time the Award is made.

- 2.16 “**Exchange Act**” means the Securities Exchange Act of 1934, as amended.
- 2.17 “**Exercise Price**” means the purchase price of the shares of Common Stock underlying a Stock Option.
- 2.18 “**Fair Market Value**” of a share of Common Stock as of a date of determination means the following:

- (a) Stock Listed and Shares Traded. If the Common Stock is listed and traded on a national securities exchange (as such term is defined by the Exchange Act) or on the NASDAQ National Market System on the date of determination, the Fair Market Value per share shall be the closing price of a share of the Common Stock on said national securities exchange or NASDAQ National Market System on the business day immediately preceding the date of determination. If the Common Stock is traded in the over-the-counter market, the Fair Market Value per share shall be the closing price of a share on the business day immediately preceding the date of determination.
- (b) Stock Listed But No Shares Traded. If the Common Stock is listed on a national securities exchange or on the NASDAQ National Market System but no shares of the Common Stock are traded on the date of determination but there were shares traded on dates within a reasonable period before the date of determination, the Fair Market Value shall be the closing price of a share of the Common Stock on the most recent date before the date of determination. If the Common Stock is regularly traded in the over-the-counter market but no shares of the Common Stock are traded on the date of determination (or if records of such trades are unavailable or burdensome to obtain) but there were shares traded on dates within a reasonable period before the date of determination, the Fair Market Value shall be the average of the closing bid and asked prices of a share of the Common Stock on the most recent date before the date of determination on which trading occurred.
- (c) Stock Not Listed. If the Common Stock is not listed on a national securities exchange or on the NASDAQ National Market System and is not regularly traded in the over-the-counter market, then the Committee shall determine the Fair Market Value of the Common Stock in a manner consistent with the requirements of Code Section 409A, and in the case of an ISO, in compliance with Code Section 422.

In any event, the determination of Fair Market Value should be consistent with the requirements of Code Section 409A and in the case of an ISO, in compliance with Code Section 422. The Committee’s determination of Fair Market Value, which shall be made pursuant to the foregoing provisions, shall be final and binding for all purposes of this Plan.

2.19 “**Family Member**” means a person who is a spouse, former spouse, child, stepchild, grandchild, parent, stepparent, grandparent, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother, sister, brother-in-law, or sister-in-law, including adoptive relationships, of the Participant, any person sharing the Participant’s household (other than a tenant or employee), a trust in which any one or more of these persons have more than fifty percent (50%)

of the beneficial interest, a foundation in which any one or more of these persons (or the Participant) control the management of assets, and any other entity in which one or more of these persons (or the Participant) own more than fifty percent (50%) of the voting interests.

2.20 “**Incentive Stock Option**” or “**ISO**” means an option to purchase shares of Common Stock that is granted under Article VI hereof, designated as an incentive stock option, and intended to meet the requirements of Code Section 422.

2.21 “**Nonqualified Stock Option**” or “**NQSO**” means an option to purchase shares of Common Stock that is granted under Article VI hereof and not an incentive stock option within the meaning of Code Section 422.

2.22 “**Officer**” means “officer” as defined in Rule 16a-1(f) under Section 16(a) of the Exchange Act.

2.23 “**Participant**” means an individual who has been selected to receive an Award, or with respect to whom an Award is outstanding, under the Plan.

2.24 “**Performance Measures**” means any one or more of the criteria or measurements by which specific performance goals may be established and performance may be measured, as determined by the Committee, in its discretion. Performance Measures may include any one or more of the following: (a) earnings before all or any taxes (“EBT”); (b) earnings before all or any of interest expense, taxes, depreciation and amortization (“EBITDA”); (c) earnings before all or any of interest expense, taxes, depreciation, amortization and rent (“EBITDAR”); (d) earnings before all or any of interest expense and taxes (“EBIT”); (e) net earnings; (f) net income; (g) operating income or margin; (h) earnings per share; (i) growth; (j) return on shareholders’ equity; (k) capital expenditures; (l) expenses and expense ratio management; (m) return on investment; (n) improvements in capital structure; (o) profitability of an identifiable business unit or product; (p) profit margins; (q) stock price; (r) market share; (s) revenues; (t) costs; (u) cash flow; (v) working capital; (w) return on assets; (x) economic value added; (y) industry indices; (z) peer group performance; (aa) regulatory ratings; (bb) asset quality; (cc) gross or net profit; (dd) net sales; (ee) total shareholder return; (ff) sales (net or gross) measured by product line, territory, customers or other category; (gg) earnings from continuing operations; (hh) net worth; (ii) levels of expense, cost or liability by category, operating unit or any other delineation; (jj) non-GAAP operating income; (kk) adjusted EBIT, and (ll) any other criteria or measurement approved by the Committee. Performance Measures may relate to the Company and/or one or more of its Affiliates, one or more of its divisions or units or any combination of the foregoing, on a consolidated or nonconsolidated basis, and may be applied on an absolute basis or be relative to one or more peer group companies or indices, or any combination thereof, all as the Committee determines.

2.25 “**Plan**” means this ADTRAN, Inc. 2020 Employee Stock Incentive Plan.

2.26 “**Prior Plans**” means the:

- (a) ADTRAN, Inc. 1986 Employee Incentive Stock Option Plan (expired on February 14, 1996);
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- (b) ADTRAN, Inc. 1996 Employees Incentive Stock Option Plan (expired on February 14, 2006);
- (c) ADTRAN, Inc. 2006 Employee Stock Incentive Plan (expired on January 23, 2016); and
- (d) ADTRAN, Inc. 2015 Employee Stock Incentive Plan (terminated upon the Effective Date of this Plan).

2.27 “**Restricted Stock**” means an Award of Common Stock that is subject to such conditions, restrictions and contingencies as the Committee determines, including the satisfaction of specified Performance Measures.

2.28 “**Restricted Stock Unit**” or “**RSU**” means an Award of a unit representing one share of Common Stock that, upon satisfaction of certain conditions, restrictions and contingencies as the Committee determines, including the satisfaction of specified Performance Measures shall result in the issuance of one share of Common Stock.

2.29 “**Retirement**” means the date of a Participant’s Separation from Service with the Company and all of its Affiliates at any time after (a) attaining age sixty-five (65) or (b) completing twenty-five (25) years of service for the Company, any Affiliate and any predecessor of the Company or Affiliate.

2.30 “**Rule 16b-3**” means Rule 16b-3 under Section 16(b) of the Exchange Act, as then in effect or any successor provision.

2.31 “**Securities Act**” means the Securities Act of 1933, as amended.

2.32 “**Separation from Service**” means a termination of employment or service by a Participant with the Company and its Affiliates; provided, that if any Award that is treated as nonqualified deferred compensation (within the meaning of Code Section 409A), or any dividend or dividend credit thereon, is to be paid or distributed upon a Separation from Service, then a Separation from Service shall not occur unless it qualifies as a “separation from service” within the meaning of Code Section 409A. Unless otherwise stated in the applicable Award Agreement, a Participant’s change in position, duties or status (e.g., from employee to consultant, consultant to director, employee to director) shall not result in interrupted or terminated employment or service, so long as such Participant continues to provide services to the Company or an Affiliate and a “separation from service” under Code Section 409A is not deemed to have occurred. The determination of whether an authorized leave of absence or absence for military or government service or for any other reason shall constitute a Separation from Service for purposes of any Award granted under the Plan shall be determined by the Committee and, if applicable, in accordance with Code Section 409A, which determination shall be final and conclusive.

2.33 “**Stock Appreciation Right**” or “**SAR**” means an Award representing a Participant’s right to receive payment in the form of cash or Common Stock in an amount equal to the excess of the Fair Market Value of the exercised shares of Common Stock subject to such SAR (or portion thereof) over their Base Value.

2.34 “**Stock Option**” means an ISO or NQSO, as applicable, granted to an Employee or service provider under the Plan.

2.35 “**Subsidiary**” means any “subsidiary corporation” of the Company within the meaning of Code Section 424(f).

2.36 “**Ten Percent Shareholder**” means an individual who owns more than ten percent (10%) of the total combined voting power of all classes of outstanding stock of the Company, its parent (as defined in Code Section 424(e)), or any of its Subsidiaries. In determining stock ownership, the attribution rules of Code Section 424(d) shall apply.

ARTICLE III PLAN ADMINISTRATION

3.1 General Administration. The Plan shall be administered and interpreted by the Committee (as designated pursuant to Section 3.2). Subject to the express provisions of the Plan, the Committee shall have authority to interpret the Plan, to prescribe, amend and rescind rules and regulations relating to the Plan, to determine the terms and provisions of the Award Agreements by which Awards shall be evidenced (which shall not be inconsistent with the terms of the Plan), and to make all other determinations necessary or advisable for the administration of the Plan, all of which determinations shall be final, binding and conclusive on all persons.

3.2 Appointment of Committee. The Board shall appoint the Committee from among its non-employee members to serve at the pleasure of the Board. The Board from time to time may remove members from, or add members to, the Committee and shall fill all vacancies thereon.

3.3 Organization. The Committee may select one of its members as its chairman and shall hold its meetings at such times and at such places as it shall deem advisable. A majority of the Committee shall constitute a quorum, and such majority shall determine its actions. The Committee shall keep minutes of its proceedings and shall report the same to the Board at least annually.

3.4 Individuals Eligible for Awards. The individuals eligible to receive Awards shall be (a) active Employees of the Company or its Subsidiaries, including Employees who are also members of the Board and (b) key service providers and advisors of the Company. Only Employees of the Company or any Subsidiary shall be eligible to receive ISOs.

3.5 Powers of Committee. The Committee may make one or more Awards under the Plan. The Committee shall decide which eligible Employees and service providers shall receive an Award and when to grant an Award, the type of Award that it shall grant and the number of shares of Common Stock covered by the Award, subject to the terms of the Plan. The Committee shall also decide the terms, conditions, performance criteria, restrictions and other provisions of the Award. The Committee shall act by a majority of its then members, at a meeting of the Committee or by unanimous written consent. The Committee shall keep adequate records concerning the Plan and the Committee’s proceedings and acts in such form and detail as the Committee may decide.

3.6 Delegation by Committee. Unless prohibited by applicable law or the applicable rules of a stock exchange, the Committee may allocate all or some of its responsibilities and powers to any one or more of its members. The Committee also may delegate some or all of its administrative duties and powers to any employee or Officer of the Company or its Affiliates. The Committee hereby delegates to the Company's Chief Executive Officer (a) the authority to grant Awards under the Plan to service providers and Employees who are not officers of the Company or any Affiliate, provided that any such Award shall be governed by the form of Award Agreement most recently approved by the Committee for use in making Awards under the Plan and the Chief Executive Officer shall report any such grants to the Committee at its next meeting; and (b) in the event a Participant Separates from Service, the power to accelerate the exercisability or vesting of any outstanding Award held by the Participant, or to permit any such Award to continue to vest in accordance with its original vesting schedule. The Committee hereby delegates to the Company's Corporate Secretary the authority to document any and all Awards made by the Committee and/or the Chief Executive Officer under the Plan by execution of the appropriate Award Agreements. The Committee may revoke any such allocation or delegation at any time.

3.7 Information to be Furnished to Committee. In order for the Committee to discharge its duties, it may require the Company, its Affiliates, Participants and other persons entitled to benefits under the Plan to provide it with certain data and information.

3.8 Deferral Arrangement. The Committee may permit or require the deferral of payment of any Award, subject to such rules and procedures as it may establish and in accordance with Code Section 409A. Unless otherwise provided in an Award Agreement, any such deferral will not include provisions for the payment or crediting of interest or dividend equivalents.

3.9 Indemnification. In addition to such other rights of indemnification that apply to them as members of the Board or a committee thereof, the Company shall indemnify the members of the Committee (and any designees of the Committee, as permitted under Section 3.6), to the extent permitted by applicable law, against reasonable expenses (including, without limitation, attorney's fees) actually and necessarily incurred in connection with the defense of any action, suit or proceeding, or in connection with any appeal, to which they or any of them may be a party by reason of any action taken or failure to act under or in connection with the Plan or any Award awarded hereunder, and against all amounts paid by them in settlement thereof (provided such settlement is approved to the extent required by and in the manner provided by the Articles of Incorporation or the Bylaws of the Company relating to indemnification of the members of the Board) or paid by them in satisfaction of a judgment in any such action, suit or proceeding, except in relation to such matters as to which it is adjudged in such action, suit or proceeding that such Committee member or members (or their designees) did not act in good faith and in a manner reasonably believed to be in or not opposed to the best interests of the Company.

ARTICLE IV STOCK SUBJECT TO THE PLAN

4.1 Common Stock Subject to Awards. Common Stock subject to Awards and other provisions of the Plan shall consist of the following: (a) authorized but unissued shares of Common Stock; (b) authorized and issued shares of Common Stock held by the Company in its treasury

which have been reacquired by the Company; and (c) shares of Common Stock purchased by the Company in the open market.

4.2 Authorized Shares. Subject to adjustment in accordance with the provisions of Section 4.3, the maximum number of shares of Common Stock that may be issued under the Plan for Awards shall equal two million seven hundred seventy two thousand (2,772,000) shares of Common Stock (subject to increase in connection with awards previously granted under the Prior Plans as provided in Section 4.2(b)), all of which may be issued as ISOs under the Plan, and adjusted as follows:

- (a) Each Award of Stock Options, Restricted Stock or Restricted Stock Units granted under this Plan will reduce the number of authorized shares available under the Plan by one (1) share of Common Stock for each share underlying such Award.
- (b) Shares of Common Stock underlying an Award under this Plan or Prior Plans that is cancelled, terminated, expires without exercise, is forfeited, or lapses, for any reason shall again be available for issuance pursuant to Awards under this Plan (in the case of Restricted Stock or RSUs granted under the 2015 Employee Stock Incentive Plan, at the 2.5 share multiple provided by such Prior Plan).
- (c) Notwithstanding anything to the contrary herein, the following shares shall not again become available for issuance under the Plan: (1) shares of Common Stock withheld by, or otherwise remitted to, the Company as full or partial payment of the Exercise Price to the Company upon exercise of Stock Options granted under the Plan; (2) shares of Common Stock reserved for issuance under the Plan upon the grant of SARs to the extent the number of reserved shares exceeds the number of shares actually issued upon exercise of the SARs; and (3) shares of Common Stock withheld by, or otherwise remitted to, the Company to satisfy a Participant's tax withholding obligations upon the lapse of restrictions on Restricted Stock or RSUs or upon the exercise of Stock Options or SARs or upon any other payment or issuance under the Plan.

The Committee shall establish appropriate methods for determining the number of shares available for issuance under the Plan and the number of shares that have been actually issued under the Plan at any time. In no event shall fractional shares of Common Stock be issued under the Plan.

4.3 Effects of Changes in Capitalization.

- (a) Changes to Common Stock. If the number of outstanding shares of Common Stock is increased or decreased or the shares of Common Stock are changed into or exchanged for a different number or kind of shares or other securities of the Company on account of any recapitalization, reclassification, stock split, reverse split, combination of shares, exchange of shares, stock dividend or other distribution payable in capital stock, or other increase or decrease in such shares effected without receipt of consideration by the Company occurring after the Effective Date ("**Equity Restructuring**"), the number and kinds of shares for which Awards may be granted under the Plan, the Exercise Price and/or the Base Value
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shall be adjusted proportionately and accordingly by the Committee; provided, that any such adjustment shall comply with Code Sections 409A and 424, if applicable. In addition, the number and kind of shares of Common Stock for which Awards are outstanding shall be adjusted proportionately and accordingly so that the proportionate interest of the Participant immediately following such event shall, to the extent practicable, be the same as immediately before such event. The conversion of any convertible securities of the Company shall not be treated as an increase in shares effected without receipt of consideration.

- (b) Change of Control and Other Corporate Transactions. In the event of a merger, consolidation, reorganization, extraordinary dividend, tender offer for Common Stock, Change of Control or other change in capital structure of the Company that is not an Equity Restructuring under subsection (a) above, the Committee may (but is not required to) make such adjustments with respect to Common Stock that may be issued pursuant to Awards and the number and/or Exercise Price or Base Value of outstanding Awards and take such other action as it deems necessary or appropriate, including, without limitation, and subject to the requirements of Code Sections 409A and 424, if applicable:
- (1) making appropriate provision for the continuation of an Award by substituting on an equitable basis for the shares of Common Stock then subject to such Award either the consideration payable with respect to the outstanding shares of Common Stock in connection with the Change of Control or securities of any successor or acquiring entity;
 - (2) upon reasonable prior written notice to the Participant, providing that: (i) the Stock Options and/or SARs held by such Participant, to the extent then exercisable, must be exercised within a specified number of days after the date of such notice, at the end of which period the Stock Options and/or SARs shall terminate without payment, and/or (ii) a grant of Restricted Stock and/or RSUs Stock must be accepted (to the extent then subject to acceptance) within a specified number of days after the date of such notice, at the end of which period the offer of the Restricted Stock and/or RSUs shall terminate;
 - (3) terminating an Award, whether vested or unvested, in exchange for a payment equal to (i) for Restricted Stock and RSUs, the Fair Market Value of the shares of Common Stock subject to the Award or (ii) for Stock Options and SARs, the excess of the Fair Market Value of the shares of Common Stock subject to the Award over the Exercise Price or Base Value, as applicable;
 - (4) providing that an Award shall become (as applicable) fully vested and exercisable, and any vesting period or restrictions shall lapse, immediately prior to the Change of Control; and/or
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- (5) with respect to an Award subject to Performance Measures, providing that any incomplete performance periods shall end on the date of such Change of Control (or other corporate transaction described in this subsection (b)), and the Committee shall cause the Award to be settled based upon the higher of: (i) the Participant's actual attainment of performance goals for the performance period through the date of the Change of Control (or other corporate transaction described in this subsection (b)) or (ii) the performance target award.

Notwithstanding anything to the contrary, an Award having an Exercise Price or Base Value equal to or greater than the Fair Market Value of the consideration to be paid per share of Common Stock in the Change of Control may be canceled without payment of consideration to the applicable Participant.

- (c) Limits on Adjustments. Any issuance by the Company of stock of any class other than the Common Stock, or securities convertible into shares of stock of any class, shall not affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares of the Common Stock subject to any Award, except as specifically provided otherwise in this Plan. The grant of Awards under the Plan shall not affect in any way the right or authority of the Company to make adjustments, reclassifications, reorganizations or changes of its capital or business structure or to merge, consolidate or dissolve, or to liquidate, sell or transfer all or any part of its business or assets. No fractional shares or other securities shall be issued pursuant to any such adjustment, and any fractions resulting from any such adjustment shall be eliminated in each case by rounding downward to the nearest whole share with no cash payment due therefor. If the Company issues any rights to subscribe for additional shares pro rata to holders of outstanding shares of the class or classes of stock then set aside for the Plan, then each Participant shall be entitled to the same rights on the same basis as holders of outstanding shares with respect to such portion of the Participant's Award as is exercised on or prior to the record date for determining shareholders entitled to receive or exercise such rights. All adjustments the Committee makes under this Plan shall be final and conclusive.

ARTICLE V RULES APPLICABLE TO AWARDS

5.1 Maximum Annual Limits on Awards. Subject to adjustment as provided in Section 4.3, the number of shares of Common Stock underlying Awards granted to a Participant in any calendar year shall not exceed 250,000 shares of Common Stock.

5.2 Transferability.

- (a) Except as provided in subsection (b) below: (1) no Award shall be assignable or transferable by the Participant except by transfer to a Beneficiary upon the death of the Participant, and any purported transfer (other than as excepted above) shall be
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null and void. After the death of a Participant and upon the death of the Participant's Beneficiary, an Award shall be transferable only by will or the laws of descent and distribution; (2) Awards shall be exercisable during the Participant's lifetime only by the Participant (or a legal representative if the Participant becomes incapacitated); and (3) nothing contained in this Section 5.2 shall preclude a Participant from transferring shares of Restricted Stock that have vested, or shares of Common Stock that are issued in settlement of a Stock Option, SAR or RSUs, subject to the remaining provisions of this Plan and applicable law.

- (b) A Participant may transfer not for value any Award other than an ISO to any Family Member of the Participant using such form and subject to such additional administrative procedures as approved by the Committee from time to time; provided, however, that any such Award shall remain subject to all vesting, forfeiture, and other restrictions provided herein and in the Award Agreement to the same extent as if it had not been transferred. For purposes of this subsection (b), a "not for value" transfer is a transfer which is (1) a gift, (2) a transfer under a domestic relations order in settlement of marital property rights; or (3) a transfer to an entity in which more than fifty percent (50%) of the voting interests are owned by Family Members (or the Participant) in exchange for an interest in that entity. Subsequent transfers of transferred Awards are prohibited except to Family Members of the Participant in accordance with this subsection (b) or by will or the laws of descent and distribution.

5.3 Accelerated Exercisability and Vesting. The Committee (or the Company's Chief Executive Officer, in the case of Awards granted to employees and service providers who are not Officers) shall always have the discretionary power to accelerate the exercisability or vesting of, any Award granted under the Plan, or to permit the continued vesting of any such Award according to its original vesting schedule, notwithstanding the Participant's Separation from Service for any reason. Unless otherwise determined by the Committee and set forth in the applicable Award Agreement, in the event of one of the following events, any outstanding Awards shall immediately become fully exercisable or vested: (1) the Participant's death; (2) the Participant's Separation from Service due to Disability; or (3) a Change of Control of the Company; provided, however, if an outstanding Award of Restricted Stock or RSUs remains subject to any performance-based vesting schedule, then upon one of the above events, a proportion of the shares subject to such Award shall become vested and nonforfeitable, equal to the proportion of the time completed through the date of the applicable event to the performance measurement period for the Award, with target performance level deemed to be achieved as of the date of the applicable event, and in the event the Restricted Stock or RSU Award was originally scheduled without a designated target performance level (*e.g.*, a single performance level or minimum and maximum performance levels), then the performance level that, if met, would have resulted in the least number of shares becoming vested shall be treated as the target level.

5.4 Separation From Service. Unless the Committee decides otherwise, all Awards (or portions thereof) that remain unexercisable or unvested upon the Participant's Separation from Service for any reason other than the events listed in Section 5.3 shall be forfeited by the Participant immediately upon the date of such Separation from Service.

5.5 Waiver of Restrictions. The Committee (or the Company's CEO, as provided in Section 5.3 above) may elect, in its sole discretion, to waive any or all restrictions with respect to any Award under the Plan.

5.6 No Repricing of Awards. Except as provided in Section 4.3, the Committee shall not amend any Stock Option or SAR to reduce its Exercise Price or Base Value, and shall not issue to any Participant a new Award in exchange for the surrender and cancellation of any other Award, if such new Award has an Exercise Price or Base Value (as applicable) lower than that of the Award for which it is exchanged, or take any other action that would have the effect of reducing the Exercise Price or Base Value of a Stock Option or SAR.

ARTICLE VI STOCK OPTIONS

6.1 Grant of Stock Options. The Committee may grant Stock Options for shares of Common Stock in such amounts as it may determine and subject to the provisions of the Plan. A Stock Option shall constitute an ISO only if the Participant is an Employee and the Stock Option is specifically designated as an Incentive Stock Option in the applicable Award Agreement.

6.2 Award Agreement. An Award of a Stock Option shall be evidenced by an Award Agreement that specifies the following terms and any additional terms and conditions determined by the Committee and not inconsistent with the Plan: (a) the name of the Participant; (b) the total number of shares of Common Stock to which the Stock Option pertains; (c) the Exercise Price of the Stock Option; (d) the date as of which the Committee granted the Stock Option; (e) the type of Stock Option granted; (f) the requirements for the Stock Option to become exercisable, such as continuous service, time-based schedule, period and goals for Performance Measures to be satisfied, additional consideration, etc.; (g) the expiration date of the Stock Option; and (h) the Beneficiary of the Participant.

6.3 Exercise Price. The per share Exercise Price of a Stock Option shall not be less than 100% of the Fair Market Value of a share of Common Stock as of the date of grant (or, in the case of an ISO granted to a Ten Percent Shareholder, 110% of the Fair Market Value of a share of Common Stock as of the date of grant).

6.4 Exercisability.

(a) General Schedule. Subject to paragraph (b) below, each Stock Option shall become exercisable according to the following schedule, measured from the date of grant:

Anniversary of the date of grant:	Vested percentage:
One-year anniversary	25%
Two-year anniversary	25%
Three-year anniversary	25%
Four-year anniversary	25%

Once a portion of a Stock Option is exercisable, that portion continues to be exercisable until the Stock Option expires (as described in Section 6.5). Fractional shares shall be disregarded for exercise.

- (b) Other Vesting Requirements. The Committee may specify another vesting schedule in the Award Agreement, whether time-based or performance-based and with any other conditions, restrictions and contingencies as it determines, in its sole discretion, *provided* that such schedule may not result in vesting of any portion of the Stock Option before the one (1) year anniversary of its date of grant, except in the event of the Participant's death or Disability or pursuant to Committee action taken in connection with a Change of Control as described in Section 4.3(b). The Committee may designate a single goal criterion or multiple goal criteria for performance measurement purposes. Notwithstanding the foregoing, the Committee (or the CEO pursuant to the delegation described in Section 3.6) may in its discretion in connection with a Participant's Separation from Service, accelerate the vesting of any Stock Option held by the Participant or permit the continued vesting of such Award on the vesting schedule set forth in the Participant's Award Agreement. Other than as provided in the preceding sentences, if a Participant Separates from Service, his or her rights to all non-vested Stock Options shall cease immediately.

6.5 Expiration Date.

- (a) Expiration Date. The expiration date of any Stock Option shall be the earliest to occur of the following:
- (1) Maximum Term. The date ten (10) years from the date of grant of the Stock Option (or for an ISO granted to a Ten Percent Shareholder, five (5) years from the date of grant);
 - (2) Termination for Cause. The date of the Participant's Separation from Service for Cause with the Company and all Affiliates;
 - (3) Separation from Service due to Death, Disability or Retirement. The one-year anniversary of the Participant's Separation from Service with the Company and all Affiliates due to death, Disability or Retirement, or such shorter period as determined by the Committee and set forth in the Award Agreement; and
 - (4) Separation from Service. The date that is three (3) months following the date of the Participant's Separation from Service with the Company and all Affiliates for any reason other than those specified elsewhere in this Section 6.5(a), or such shorter period as determined by the Committee and set forth in the Award Agreement.

Notwithstanding the foregoing, the Committee may, in its discretion, in connection with a Participant's Separation from Service, permit an Award to remain

exercisable for the full exercise period set forth in the Award Agreement or the maximum term as described in Section 6.5(a)(1) above so long as such extension does not violate Code Section 409A or other applicable laws.

- (b) Expiration Date Following Change of Control. Notwithstanding the provisions of Section 6.5(a) above and unless the Committee specifies otherwise in the Award Agreement, at any time following a Change of Control of the Company, in the event a Participant incurs a Separation from Service with the Company and its Affiliates for any reason other than: (1) due to death or Disability, (2) for Cause or (3) due to a voluntary resignation, the term of all Stock Options held by such Participant shall be extended to their maximum term as described in Section 6.5(a)(1) above.

6.6 Minimum Exercise Amount. Unless the Committee specifies otherwise in the Award Agreement, a Participant may exercise a Stock Option for less than the full number of shares of Common Stock subject to the Stock Option. However, each exercise may not be made for less than 100 shares or, if less, the total remaining shares subject to the Stock Option. The Committee may in its discretion specify other Stock Option terms, including restrictions on frequency of exercise and periods during which Stock Options may not be exercised.

6.7 Payment of Exercise Price. The Participant must pay the full Exercise Price for shares of Common Stock purchased upon the exercise of any Stock Option, and all applicable withholding taxes, at the time of such exercise by one of the following forms of payment:

- (a) cash or cash equivalents acceptable to the Company;
- (b) delivery (on a form acceptable to the Committee) of an irrevocable direction to a licensed securities broker acceptable to the Company to sell shares of Common Stock and to deliver all or part of the sales proceeds to the Company in payment of the Exercise Price;
- (c) delivery of shares of Common Stock already owned by the Participant (and for which the Participant has good title free and clear of any liens and encumbrances) having a Fair Market Value on the date of surrender equal to the aggregate Exercise Price and taxes due;
- (d) with the Committee's approval, having the Company withhold shares of Common Stock that otherwise would be acquired on exercise having a Fair Market Value equal to the aggregate Exercise Price; or
- (e) any combination of the above forms or any other form of payment permitted by the Committee.

6.8 Rights as a Shareholder. A Participant shall first have rights as a shareholder of the Company with respect to shares of Common Stock covered by a Stock Option (including rights to dividends and voting) only when the Participant has paid the Exercise Price and applicable withholding taxes in full and the shares actually have been issued to the Participant. No dividend equivalents shall be payable with respect to unexercised Stock Options or unissued shares.

6.9 Limitations on ISOs.

- (a) An Award shall qualify as an ISO only to the extent that the aggregate Fair Market Value (determined at the time the Stock Option is granted) of the shares of Common Stock with respect to which all ISOs held by such Participant become exercisable for the first time during any calendar year (under the Plan, the Prior Plans, and all other plans of the Company, its parent (as defined in Code Section 424(e)) or a Subsidiary) does not exceed \$100,000. This \$100,000 limitation shall be applied by taking ISOs into account in the order in which they were granted. Any portion of an ISO in excess of such \$100,000 limitation will be treated as a NQSO.
- (b) If any Participant shall make any disposition of shares of Common Stock delivered pursuant to the exercise of an ISO that is a disqualifying disposition, such Participant shall notify the Company of such disposition within ten (10) business days thereof. A disqualifying disposition is any disposition (including any sale) of Common Stock acquired upon exercise of an ISO before the later of (1) two (2) years after the grant date of the ISO or (2) one (1) year after the date the Participant acquired the Common Stock by exercising the ISO.
- (c) If all or part of an ISO is not exercised within (1) three (3) months after the date of the Participant's Separation from Service for any reason except due to death or Disability, or (2) within one (1) year following the Participant's Separation from Service due to death or Disability, but remains exercisable, the unexercised portion thereof shall automatically be treated as a NQSO for the remainder of the term of the Stock Option.

**ARTICLE VII
STOCK APPRECIATION RIGHTS**

7.1 Grant of SARs. The Committee may grant Stock Appreciation Rights to Participants in such amounts as it may determine and subject to the provisions of the Plan.

7.2 SAR Award Agreement. An Award of SARs shall be evidenced by an Award Agreement that specifies the following terms and any additional terms and conditions determined by the Committee and not inconsistent with the Plan: (a) the name of the Participant; (b) the total number of shares of Common Stock to which the SAR pertains; (c) the Base Value of the SAR; (d) the date as of which the Committee granted the SAR; (e) the type of SAR granted; (f) the requirements for the SAR to become exercisable, such as continuous service, time-based schedule, period and goals for Performance Measures to be satisfied, additional consideration, etc.; (g) the expiration date of the SAR; and (h) the Beneficiary of the Participant.

7.3 Base Value. The per share Base Value of each SAR shall not be less than 100% of the Fair Market Value of a share of Common Stock as of the date of grant.

7.4 Exercisability.

- (a) General Schedule. Subject to paragraph (b) below, each SAR shall become exercisable according to the following schedule, measured from the date of grant:

Anniversary of the date of grant:	Vested percentage:
One-year anniversary	25%
Two-year anniversary	25%
Three-year anniversary	25%
Four-year anniversary	25%

Once a portion of a SAR is exercisable, that portion continues to be exercisable until the SAR expires (as described in Section 7.5). Fractional shares shall be disregarded for exercise.

- (b) Other Vesting Requirements. The Committee may specify another vesting schedule in the Award Agreement, whether time-based or performance-based and with any other conditions, restrictions and contingencies as it determines, in its sole discretion, *provided* that such schedule may not result in vesting of any portion of the SAR before the one (1) year anniversary of its date of grant, except in the event of the Participant's death or Disability or pursuant to Committee action taken in connection with a Change of Control as described in Section 4.3(b) above. The Committee may designate a single goal criterion or multiple goal criteria for performance measurement purposes. Notwithstanding the foregoing, the Committee (or the CEO pursuant to the delegation described in Section 3.6) may in its discretion in connection with a Participant's Separation from Service, accelerate the vesting of any SAR held by the Participant or permit the continued vesting of such Award on the vesting schedule set forth in the Participant's Award Agreement. Other than as provided in the preceding sentences, if a Participant Separates from Service, his or her rights to all non-vested SARs shall cease immediately.

7.5 Expiration Date.

- (a) Expiration Date. The expiration date of any SAR shall be the earliest to occur of the following:
- (1) Maximum Term. The date ten (10) years from the date of grant of the SAR;
 - (2) Separation from Service for Cause. The date of the Participant's Separation from Service for Cause with the Company and all Affiliates;
 - (3) Separation from Service due to Death, Disability or Retirement. The one-year anniversary of the Participant's Separation from Service with the
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Company and all Affiliates due to death, Disability or Retirement, or such shorter period as determined by the Committee and set forth in the SAR Agreement; and

- (4) Separation from Service. The date that is three (3) months following the date of the Participant's Separation from Service with the Company and all Affiliates for any reason other than those specified elsewhere in this Section 7.5(a), or such shorter period as determined by the Committee and set forth in the SAR Agreement.

Notwithstanding the foregoing, the Committee may, in its discretion, in connection with a Participant's Separation from Service, permit an Award to remain exercisable for its full original period of exercise or the maximum term as described in Section 7.5(a)(1) above so long as such extension does not violate Code Section 409A or other applicable laws.

- (b) Expiration Date Following Change of Control. Notwithstanding the provisions of Section 7.5(a) above and unless the Committee specifies otherwise in the Award Agreement, at any time following a Change of Control of the Company, in the event a Participant incurs a Separation from Service with the Company and its Affiliates for any reason other than: (1) due to death or Disability, (2) for Cause, or (3) due to a voluntary resignation, the term of all SARs held by such Participant shall be extended to their maximum term as described in Section 7.5(a)(1) above.

7.6 Minimum SAR Exercise Amount. Unless the Committee specifies otherwise in the SAR Agreement, a Participant may exercise a SAR for less than the full number of shares of Common Stock subject to the SAR. However, each exercise may not be made for less than 100 shares or, if less, the total remaining shares subject to the SAR. The Committee may in its discretion specify other SAR terms, including restrictions on a frequency of exercise and periods during which SARs may not be exercised.

7.7 Exercise of SARs. SARs may be exercised upon the terms and conditions determined by the Committee, in its sole discretion.

7.8 Payment of SAR Amount. Upon exercise of a SAR, a Participant shall be entitled to receive payment from the Company equal to an amount determined by multiplying: (a) the difference between the Fair Market Value of a share of Common Stock on the date of exercise over the Base Value of the applicable SAR; by (b) the number of shares of Common Stock with respect to which the SAR is being exercised.

The payment for SAR exercise may be made in cash, shares of Common Stock or in some combination thereof at the sole discretion of the Committee. The form of payment shall be specified in the Award Agreement pertaining to the grant of the SAR.

7.9 Rights as a Shareholder. To the extent that a Stock Appreciation Right Award is payable (in whole or in part) in the form of shares of Common Stock, a Participant shall first have rights as a shareholder of the Company with respect to shares of Common Stock covered by the Stock Appreciation Right (including rights to dividends and voting) only when the Participant has

exercised the SAR pursuant to the terms and conditions of the Award and the shares actually have been issued to the Participant. No dividend equivalents shall be payable with respect to unexercised SARs or unissued shares.

ARTICLE VIII
RESTRICTED STOCK AND RESTRICTED STOCK UNITS

8.1 Grants of Restricted Stock and Restricted Stock Units. The Committee may grant shares of Common Stock as Restricted Stock or may grant Restricted Stock Units to Participants in such amounts as it may determine and subject to the provisions of the Plan.

8.2 Restricted Stock and Award Agreement. An Award of Restricted Stock or Restricted Stock Units shall be evidenced by an Award Agreement that specifies the following terms: (a) the name of the Participant; (b) the total number of shares of Common Stock to which the Award of Restricted Stock or Restricted Stock Units pertain; (c) the date as of which the Committee awarded the Restricted Stock or the Restricted Stock Unit; (d) the manner in which the Restricted Stock or Restricted Stock Units will become vested, nonforfeitable and transferable and a description of any restrictions applicable to the Restricted Stock or the Restricted Stock Units; (e) for RSUs, when RSUs will be settled after they vest; and (f) the Beneficiary of the Participant.

8.3 Vesting.

(a) General Schedule. Subject to paragraph (b) below, each Award of Restricted Stock or Restricted Stock Units shall become vested and nonforfeitable according to the following schedule, measured from the date of grant:

Anniversary of the date of grant:	Vested percentage:
One-year anniversary	25%
Two-year anniversary	25%
Three-year anniversary	25%
Four-year anniversary	25%

(b) Other Vesting Requirements. The Committee may specify another vesting schedule in the Award Agreement, whether time-based or performance-based and with any other conditions, restrictions and contingencies as it determines, in its sole discretion, *provided* that such schedule may not result in vesting of any portion of the Award of Restricted Stock or Restricted Stock Units before the one (1) year anniversary of its date of grant, except in the event of the Participant's death or Disability or pursuant to Committee action taken in connection with a Change of Control as described in Section 4.3(b) above. The Committee may designate a single goal criterion or multiple goal criteria for performance measurement purposes. Notwithstanding the foregoing, the Committee (or the CEO pursuant to the delegation described in Section 3.6) may in its discretion in connection with a Participant's Separation from Service, accelerate the vesting of any Award of

Restricted Stock or Restricted Stock Units held by the Participant or permit the continued vesting of such Award of Restricted Stock or Restricted Stock Units on the vesting schedule set forth in the Participant's Award Agreement; *provided, however*, that any such extension must comply with Code Section 409A and the Delay Period (as defined in Section 10.16) for specified employees. Other than as provided in the preceding sentences, if a Participant Separates from Service, his or her rights to all Restricted Stock or Restricted Stock Units that have not yet vested shall cease immediately.

8.4 Delivery of Restricted Stock.

- (a) Issuance. The Company shall issue the shares of Restricted Stock within a reasonable period of time after approval of the Restricted Stock Award; provided, that if any law or regulation requires the Company to take any action (including, but not limited to, the filing of a registration statement under the Securities Act and causing such registration statement to become effective) with respect to such shares before the issuance thereof, then the date of delivery of the shares shall be extended for the period necessary to take such action. As long as any restrictions apply to the Restricted Stock, the shares of Restricted Stock shall be held by the Committee in uncertificated form in a restricted account.
- (b) Legend. Unless the certificate representing shares of the Restricted Stock is deposited with a custodian (as described in this Section), each certificate shall bear the following legend (in addition to any other legend required by law):

“The transferability of this certificate and the shares represented hereby are subject to the restrictions, terms and conditions (including forfeiture and restrictions against transfer) contained in the ADTRAN, Inc. 2020 Employee Stock Incentive Plan and an Award Agreement dated _____, _____, between _____ and ADTRAN, Inc. The Plan and the Award Agreement are on file in the office of the Corporate Secretary of ADTRAN, Inc.”

Such legend shall be removed or canceled from any certificate evidencing shares of Restricted Stock as of the date that such shares become nonforfeitable.

- (c) Deposit with Custodian. As an alternative to delivering a stock certificate to the Participant, the Committee may deposit or transfer such shares electronically to a custodian designated by the Committee. The Committee shall cause the custodian to issue a receipt for the shares to the Participant for any Restricted Stock so deposited. The custodian shall hold the shares and deliver the same to the Participant in whose name the Restricted Stock evidenced thereby are registered only after such shares become nonforfeitable.

8.5 Settlement of RSUs. Except as otherwise provided in the Award Agreement and in accordance with Code Section 409A, RSUs shall generally be settled in shares of Common

Stock immediately following the date they vest; provided that the Committee may specify in the applicable Award Agreement that settlement shall be in cash or in a combination of Common Stock and cash.

8.6 Shareholder Rights for Restricted Stock. Upon issuance of shares of Restricted Stock, the Participant shall have immediate rights of ownership in the shares of Restricted Stock, including the right to vote the shares and the right to receive dividends with respect to the shares, notwithstanding any outstanding restrictions on the Restricted Stock. With respect to dividends, the Committee may apply any restrictions that it determines, in its sole discretion, to dividends paid on shares of Common Stock which are still subject to vesting, and such dividends shall be paid to the Participant when the underlying shares of Restricted Stock with respect to such dividends vest.

8.7 Shareholder Rights for RSUs; Dividend Credits. Unless otherwise designated by the Committee in the Award Agreement, the Participant shall have no shareholder rights with respect to the shares of Common Stock subject to the RSU, including any voting and dividend rights, until actual shares of Common Stock are issued upon settlement of such RSU Award. However, the Committee may designate that the unvested portion of an RSU Award is eligible for dividend credits, in which case such dividend credits shall be paid when such underlying shares of Common Stock subject to the RSU Award are issued to the Participant.

ARTICLE IX AMENDMENT AND TERMINATION OF PLAN AND PLAN AWARDS

9.1 Amendment and Termination By the Board. Subject to Section 9.2 below, the Board shall have the power at any time to add to, amend, modify or repeal any of the provisions of the Plan, to suspend the operation of the entire Plan or any of its provisions for any period or to terminate the Plan in whole or in part. In the event of any such action, to the extent it determines necessary to administer the Plan, the Committee shall prepare written procedures which, when approved by the Board, shall govern the administration of the Plan resulting from such addition, amendment, modification, repeal, suspension or termination. No Award Agreement may be amended to reprice or constructively reprice any Award.

9.2 Restrictions on Amendment and Termination. Notwithstanding the provisions of Section 9.1 above, the following restrictions shall apply to the Board's authority under Section 9.1 above:

- (a) Prohibition Against Adverse Effects on Outstanding Awards. No addition, amendment, modification, repeal, suspension or termination shall adversely affect, in any way, the rights of a Participant who has an outstanding Award without the consent of such Participant. The Committee shall not amend any Award Agreement that it previously has authorized under the Plan that adversely affects the Participant's rights or benefits under an Award without the written (or electronic) consent of the Participant holding such Award.
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- (b) Shareholder Approval Required for Certain Modifications. No modification or amendment of the Plan may be made without the prior approval of the shareholders of the Company if (1) such modification or amendment would cause the applicable portions of the Plan to fail to qualify as an ISO plan pursuant to Code Section 422, (2) such modification or amendment would materially increase the benefits accruing to Participants under the Plan, (3) such modification or amendment would materially increase the number of securities which may be issued under the Plan, (4) such modification or amendment would materially modify the requirements as to eligibility for participation in the Plan or (5) such approval is necessary with respect to tax, securities or other applicable laws or the applicable rules or regulations of any stock exchange or the NASDAQ National Market System. Clauses (2), (3) and (4) of the preceding sentence shall be interpreted in accordance with the provisions of paragraph (b)(2) of Rule 16b-3. Shareholder approval shall be made by a majority of the votes cast at a duly held meeting at which a quorum representing a majority of all outstanding voting stock is, either in person or by proxy, present and voting, or by the written consent in lieu of a meeting of the holders of a majority of the outstanding voting stock or such greater number of shares of voting stock as may be required by the Company's articles or certificate of incorporation and bylaws and by applicable law; provided, however, that for modifications described in clauses (2), (3) and (4) above, such shareholder approval, whether by vote or by written consent in lieu of a meeting, must be solicited substantially in accordance with the rules and regulations in effect under Section 14(a) of the Exchange Act as required by paragraph (b)(2) of Rule 16b-3.

ARTICLE X PLAN OPERATION

- 10.1 *Beneficiary*. Upon a Participant's death, the Participant's Beneficiary shall be determined as follows:
- (a) *Designation of Beneficiary*. A Participant's Beneficiary shall be the person who is last designated in writing by the Participant as such Participant's Beneficiary hereunder. A Participant shall designate his or her original Beneficiary in writing (on paper or electronically) on the form provided by the Committee. Any subsequent modification of the Participant's Beneficiary shall be on the form provided by the Committee. A designation of Beneficiary shall be effective when the properly completed form is received *and* accepted by the Committee (or its designee), as determined in the Committee's (or its delegate's) sole discretion.
- (b) *No Designated Beneficiary*. If no Beneficiary has been validly designated by a Participant, or the Beneficiary designated by the Participant is no longer living or in existence at the time of the Participant's death, then the Participant's Beneficiary shall be deemed to be the Participant's legal spouse under applicable state law, or if none, the Participant's estate.
- (c) *Designation of Multiple Beneficiaries*. A Participant may, consistent with subsection (a) above, designate more than one person as a Beneficiary if, for each
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such Beneficiary, the Participant also designates a percentage of the Participant's Award to be transferred to such Beneficiary upon the Participant's death. Unless otherwise specified by the Participant, any designation by the Participant of multiple Beneficiaries shall be interpreted as a designation by the Participant that each such Beneficiary (to the extent such Beneficiary is alive or in existence as of the Participant's date of death) should be entitled to an equal percentage of the Participant's Award. Each Beneficiary shall have complete and non-joint rights with respect to the portion of a Participant's Award to be transferred to such Beneficiary upon the Participant's death.

- (d) *Contingent Beneficiaries.* A Participant may designate one or more contingent Beneficiaries to receive all or a portion of the Participant's Award in the event that all of the Participant's original Beneficiaries should predecease the Participant. In the event that one or more original Beneficiaries predeceases the Participant, then the remaining original Beneficiaries specified above shall be entitled to the share of such deceased Beneficiary in direct proportion to their designated shares.

10.2 Compliance with Other Laws and Regulations.

- (a) The Company shall not be required to sell or issue any shares of Common Stock under any Award if the sale or issuance of such shares would constitute a violation by the Participant or the Company of any provision of any law or regulation of any governmental authority, including without limitation any federal or state securities laws or regulations. If at any time the Company shall determine, in its discretion, that the listing, registration or qualification of any shares subject to an Award upon any securities exchange or under any governmental regulatory body is necessary or desirable as a condition of, or in connection with, the issuance or purchase of shares hereunder, no shares of Common Stock may be issued or sold to the Participant exercising a Stock Option or SAR unless such listing, registration, qualification, consent or approval shall have been effected or obtained free of any conditions not acceptable to the Company, and any delay caused thereby shall in no way affect the date of termination of the Award.
- (b) In connection with the Securities Act, upon the exercise of any Option or SAR or the delivery of any shares of Common Stock underlying an Award, unless a registration statement under the Securities Act is in effect with respect to the shares of Common Stock covered by such Award, the Company shall not be required to sell or issue such shares unless the Committee has received evidence satisfactory to it that the Participant or any other individual exercising a Stock Option may acquire such shares pursuant to an exemption from registration under the Securities Act.
- (c) The Company may, but shall in no event be obligated to, register any securities covered hereby pursuant to the Securities Act. The Company shall not be obligated to take any affirmative action in order to cause the exercise of a Stock Option or the issuance of shares of Common Stock pursuant to the Plan to comply with any law or regulation of any governmental authority. As to any jurisdiction that
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expressly imposes the requirement that a Stock Option or SAR shall not be exercisable until the shares of Common Stock covered by such Stock Option or SAR are registered or are exempt from registration, the exercise of such Stock Option or SAR (under circumstances in which the laws of such jurisdiction apply) shall be deemed conditioned upon the effectiveness of such registration or the availability of such an exemption.

- (d) The Company may require a Participant to submit evidence that the Participant is acquiring shares of Common Stock for investment purposes.

10.3 Rule 16b-3. During any time when the Company has a class of equity security registered under Section 12 of the Exchange Act, it is the intent of the Company that Awards and the vesting, exercise and settlement thereof qualify for the exemption provided by Rule 16b-3 under the Exchange Act. To the extent that any provision of the Plan or action by the Board or Committee does not comply with the requirements of Rule 16b-3, it shall be deemed inoperative to the extent permitted by law and deemed advisable by the Board, and shall not affect the validity of the Plan. In the event that Rule 16b-3 is revised or replaced, the Board may exercise its discretion to modify this Plan in any respect necessary to satisfy the requirements of, or to take advantage of any features of, the revised exemption or its replacement.

10.4 Tax Withholding. The Company and its Affiliates shall have the power and the right to deduct or withhold from amounts (including withholding any shares of Common Stock that otherwise would be issued on exercise or following the vesting of an Award) to the Participant by the Company or such Affiliate, or require a Participant to remit to the Company or such Affiliate as a condition of any Award, an amount (in cash or in kind, subject to the approval of the Company) sufficient to satisfy the minimum Federal, state and local taxes, domestic or foreign, required by law or regulation to be withheld with respect to any taxable event arising as a result of the Plan. Notwithstanding the above, in the case of Stock Options and SARs, such tax withholding shall be accomplished as set forth in Sections 6.7 and 7.7.

10.5 Limitation of Implied Rights. No provision in the Plan or in any Award Agreement shall be construed to confer upon any individual the right to remain in the employ or service of the Company or any Affiliate, or to interfere in any way with any contractual or other right or authority of the Company or any Affiliate either to increase or decrease the compensation or other payments to any individual at any time, or to terminate any employment or other relationship between any individual and the Company or any Affiliate.

10.6 No Trust or Fund Created. Neither a Participant nor any other person shall, by reason of the Plan or any Award, acquire any right in or title to any assets, funds or property, other than the Common Stock of the Company or an Affiliate, including, without limitation, any specific funds, assets, or other property which the Company or its Affiliates, in its sole discretion, may set aside in anticipation of a liability under the Plan. A Participant shall have only a contractual right to the Common Stock underlying Awards granted under the Plan, unsecured by any assets of the Company or an Affiliate. Nothing contained in the Plan shall constitute a guarantee that the assets of the Company or its Affiliates shall be sufficient to pay any benefits to any person.

10.7 Nonexclusively of the Plan. Neither the adoption of the Plan nor the submission of the Plan to the Company's shareholders for approval shall be construed as creating any limitations upon the right and authority of the Board to adopt such other incentive compensation arrangements (which arrangements may be applicable either generally to a class or classes of individuals or specifically to a particular individual or particular individuals).

10.8 Conditions of Participation in the Plan. When the Committee makes an Award, it may require a Participant to execute (on paper or electronically) an Award Agreement in a form specified by the Committee, agreeing to the terms and conditions of the Award and to such additional terms and conditions, not inconsistent with the terms and conditions of the Plan, as the Committee may, in its sole discretion, prescribe. If there is a conflict between any provision of an Award Agreement and the Plan, the Plan shall control.

10.9 Notices; Evidence. In order for a Participant or other individual to give notice or other communication to the Committee, the notice or other communication shall be in the form specified by the Committee and delivered to the location designated by the Committee in its sole discretion. Anyone required to give evidence under the Plan may give such evidence by certificate, affidavit, document or other information which the person acting on the evidence considers pertinent, reliable and signed, made or presented (on paper or electronically) by the proper party or parties.

10.10 Gender and Number. Words in any gender shall include any other gender, words in the singular shall include the plural and the plural shall include the singular.

10.11 Headings. The headings in this Plan are for convenience of reference. Headings are not a part of the Plan and shall not be considered in the construction hereof.

10.12 Legal References. Any reference in this Plan to a provision of law which is later revised, modified, finalized or redesignated, shall automatically be considered a reference to such revised, modified, finalized or redesignated provision of law.

10.13 No Rights to Perform Services. Nothing contained in the Plan, or any modification thereof, shall be construed to give any individual any rights to perform services for the Company or any of its Affiliates.

10.14 Unfunded Arrangement. The Plan shall not be funded, and except for reserving a sufficient number of authorized shares to the extent required by law to meet the requirements of the Plan, the Company shall not be required to establish any special or separate fund or to make any other segregation of assets to assure the payment of any grant under the Plan.

10.15 Clawback/Recovery. Subject to Code Section 409A, all Awards granted under the Plan will be subject to clawback, recovery, or recoupment, as determined by the Committee in its sole discretion, including but not limited to a reacquisition right with respect to previously granted Restricted Stock or other cash or property, (a) as provided in the Company's forfeiture policy implemented by the Company from time to time and applicable to all Officers and directors of the Company on the same terms and conditions, including without limitation, any such policy adopted to comply with the requirements of applicable law or the rules and regulations of any stock exchange applicable to the Company, (b) as is required by the Dodd-Frank Wall Street Reform

and Consumer Protection Act, or other applicable law, (c) as provided in the applicable Award Agreement, and/or (d) to the extent that the Committee determines that the Participant has been involved in the altering, inflating, and/or inappropriate manipulation of performance/financial results or any other infraction of recognized ethical business standards, or that the Participant has willfully engaged in any activity injurious to the Company, or the Participant's Separation from Service with the Company or its Affiliates is for Cause. No recovery of compensation under this Section will be an event giving rise to a right to resign for "good reason" or "constructive termination" (or similar term) under any agreement with the Company or any of its Affiliates.

10.16 Code Section 409A. Although the Company does not guarantee to a Participant any particular tax treatment of an Award, Awards are intended to comply with, or be exempt from, the requirements of Code Section 409A, to the extent it applies. The Plan and each Award Agreement will be construed and interpreted in accordance with such intent, except as otherwise determined in the sole discretion of the Committee. In no event whatsoever shall the Company or any of its Affiliates be liable for any additional tax, interest or penalties that may be imposed on a Participant pursuant to or as a result of Code Section 409A or for any damages for failing to qualify for an exemption from, or comply with, Code Section 409A. If the Participant is deemed on a Separation from Service to be a "specified employee" within the meaning of Code Section 409A(a)(2)(B), then with regard to any Award that is considered nonqualified deferred compensation under Code Section 409A payable on account of a Separation from Service, such Award shall be paid at the date which is the earlier of (A) the expiration of the six (6) month period measured from the date of such a Separation from Service of the Participant, and (B) the date of the Participant's death (the "**Delay Period**"). Upon the expiration of the Delay Period, all payments delayed pursuant to this Section (whether they would have otherwise been payable in a single sum or in installments in the absence of such delay) shall be paid to the Participant in a lump sum and any remaining payments due under the Award shall be paid in accordance with the normal payment dates specified for them in the Plan or the applicable Award Agreement.

10.17 International Awards. The Committee may adopt special guidelines and provisions for Awards with respect to Participants who are employed or reside in any country other than the United States in order to comply with the applicable laws of such other country.

10.18 Governing Law. The Plan is governed by and shall be construed in accordance with the laws of the State of Alabama, without regard to any choice of law principles thereof or of any other jurisdiction.

**ADOPTED BY BOARD OF DIRECTORS
ON MARCH 6, 2020,
EFFECTIVE AS MAY 13, 2020**

ADTRAN, INC.
2020 DIRECTORS STOCK PLAN
effective May 13, 2020

ADTRAN, INC.
2020 DIRECTORS STOCK PLAN

ARTICLE I
Purpose

1.1 *Background.* ADTRAN, Inc. (the “**Company**”) hereby adopts this new equity incentive plan for the benefit of its directors to replace certain Prior Plans that have expired; provided, however, that notwithstanding that replacement, the Prior Plans shall remain in effect with respect to outstanding awards so long as any awards thereunder are outstanding. This new plan shall be known as the ADTRAN, Inc. 2020 Directors Stock Plan (the “**Plan**”).

1.2 *General Purpose.* The purpose of this Plan is to further the growth and development of the Company by encouraging Directors who are not employees of the Company to obtain a proprietary interest in the Company by owning its stock. The Company intends that the Plan will provide such Persons with an added incentive to continue to serve as Directors and will stimulate their efforts in promoting the growth, efficiency and profitability of the Company. The Company also intends that the Plan will afford the Company a means of attracting individuals of outstanding quality to service on the Board.

1.3 *Type of Awards Available Under the Plan.* The Plan permits Awards of stock Options, Restricted Stock and Restricted Stock Units (“**RSUs**”). The type of stock Options permitted under the Plan are nonqualified stock options (“**NQSOs**”).

1.4 *Intended Tax Effects of Awards.* The Company intends that Restricted Stock Awards granted under the Plan are subject to taxation under Code Section 83. NQSOs are subject to taxation when the NQSO is exercised. Restricted Stock Units are subject to taxation when the underlying shares of Common Stock are issued to the Participant.

1.5 *Effective Date of the Plan.* The Plan shall be effective on the date of its approval by the shareholders of the Company at the 2020 annual meeting of shareholders (the “**Effective Date**”) in accordance with applicable law (including, without limitation, approvals required under Rule 16b-3) and any registration or stock exchange rule. Notwithstanding the above, no Restricted Stock Award shall be granted prior to approval of the Plan by the Company’s shareholders.

1.6 *Term.* Unless earlier terminated by the Board pursuant to the provisions of Article IX hereof, the Plan shall remain in effect until the tenth (10th) anniversary of the Effective Date; provided, however, that notwithstanding its termination, the Plan shall remain in effect with respect to outstanding Awards as long as any Awards are outstanding.

1.7 *Operation, Administration and Definitions.* The operation and administration of the Plan are subject to the provisions of this Plan document. Capitalized terms used in the Plan are defined in Article II below or may be defined within the Plan.

1.8 *Legal Compliance.* The Plan is intended to comply with (a) Code Section 409A, to the extent any Awards are treated as nonqualified deferred compensation under Code Section 409A, and (b) the exemption of Awards under the provisions of Rule 16b-3.

ARTICLE II Definitions

The following words and phrases as used in this Plan shall have the meanings set forth in this Article unless a different meaning is clearly required by the context:

2.1 **“Affiliate”** means an entity that, directly or indirectly, controls, is controlled by, or is under common control with the Company, within the meaning of Rule 12b-2 of the Exchange Act.

2.2 **“Award”** means any Option, Restricted Stock, or Restricted Stock Unit granted to a Participant under the Plan.

2.3 **“Award Agreement”** means the written (or electronic) agreement issued by the Company to the Participant that sets forth the terms and provisions of an Award granted under the Plan.

2.4 **“Beneficiary”** means, with respect to a Participant, the Person(s) to whom the Participant’s Award shall be transferred upon the Participant’s death, determined as set forth in Section 10.1.

2.5 **“Board”** means the Board of Directors of the Company.

2.6 **“Cause”** means an act or acts by a Person involving personal dishonesty, incompetence, willful misconduct, moral turpitude, intentional failure to perform stated duties, willful violation of any law, rule or regulation (other than traffic violations or similar offenses), the use for profit or disclosure to unauthorized Persons of confidential information or trade secrets of the Company or its subsidiaries, the breach of any contract with or material written policy of the Company or its subsidiaries, the unlawful trading in the securities of the Company or of another corporation based on information gained as a result of the performance of services for the Company or its subsidiaries, a felony conviction, or the failure to contest prosecution for a felony, embezzlement, fraud, deceit or civil rights violations, any of which acts negatively impact the Company or any of its subsidiaries or cause the Company or any of its subsidiaries liability or loss, as determined by the Committee in its sole discretion.

2.7 **“Change of Control”** means the occurrence of any of the following events on or after the Effective Date of this Plan:

- (a) *Change in Ownership.* A change in the ownership of the Company occurs on the date that any one Person, or more than one Person acting as a group, acquires ownership of stock of the Company that, together with stock held by such Person or group, constitutes more than fifty percent (50%) of the total fair market value or total voting power of the stock of the Company. However, if any one Person or more than one Person acting as a group, is considered to own more than fifty percent

(50%) of the total fair market value or total voting power of the stock of the Company, the acquisition of additional stock by the same Person or Persons is not considered to cause a change in the ownership of the Company or to cause a change in the effective control of the Company (within the meaning of subsection (b) below). An increase in the percentage of stock owned by any one Person, or Persons acting as a group, as a result of a transaction in which the Company acquires its stock in exchange for property, will be treated as an acquisition of stock for purposes of this Section. This applies only when there is a transfer of stock of the Company (or issuance of stock of the Company) and stock in the Company remains outstanding after the transaction.

- (b) *Change in Effective Control.* A change in the effective control of the Company occurs on the date that either: (1) any one Person, or more than one Person acting as a group, acquires (or has acquired during the 12-month period ending on the date of the most recent acquisition by such Person or Persons) ownership of stock of the Company possessing thirty-five percent (35%) or more of the total voting power of the stock of the Company; or (2) a majority of members of the Board is replaced during any 12-month period by directors whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. A change in effective control may occur in any transaction in which either of the two corporations involved in the transaction has a Change of Control; or
- (c) *Change in Ownership of a Substantial Portion of Assets.* A change in the ownership of a substantial portion of the Company's assets shall occur on the date that any one Person, or more than one Person acting as a group, acquires (or has acquired during the 12-month period ending on the date of the most recent acquisition by such Person or Persons) assets from the Company that have a total gross fair market value equal to or more than forty percent (40%) of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions. For this purpose, gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets.

Notwithstanding the foregoing, if it is determined that an Award hereunder is subject to Code Section 409A, the Company will not be deemed to have undergone a Change of Control unless the Company is deemed to have undergone a "change in ownership," a "change in effective control," or a "change in the ownership of a substantial portion of the assets," within the meaning of Code Section 409A.

2.8 "**Code**" means the Internal Revenue Code of 1986, as amended. A reference to any provision of the Code includes any regulations and formal guidance issued thereunder and any reference to any successor provision of the Code.

2.9 "**Committee**" means the committee appointed by the Board pursuant to Section 3.2 hereof to administer and interpret the Plan in accordance with Article III. The Committee shall (a) consist of two or more individuals each of whom shall be, to the extent required by Rule 16b-3, a

“non-employee director” as defined in Rule 16b-3, and (b) satisfy the applicable requirements of any stock exchange or national market system on which the Common Stock may then be listed.

2.10 “**Common Stock**” means the common stock of the Company, par value \$0.01 per share.

2.11 “**Company**” means ADTRAN, Inc., a Delaware corporation, and any successor thereto.

2.12 “**Director**” means an individual who is not an employee of the Company and who is serving as a member of the Board (*i.e.*, a director of the Company), including as a director emeritus providing advisory services to the Board.

2.13 “**Disability**” means a Participant is unable to engage in any substantial gainful activity by reason of any medically-determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than twelve (12) months. A Participant shall be considered disabled only if he furnishes such proof of Disability as the Committee may reasonably require from time to time.

2.14 “**Effective Date**” means the effective date of this Plan, subject to shareholder approval as provided in Section 1.5.

2.15 “**Exchange Act**” means the Securities Exchange Act of 1934, as amended.

2.16 “**Exercise Price**” means the purchase price of the shares of Common Stock underlying an Option.

2.17 “**Fair Market Value**” of the Common Stock as of a date of determination means the following:

(a) *Stock Listed and Shares Traded.* If the Common Stock is listed and traded on a national securities exchange (as such term is defined by the Exchange Act) or on the NASDAQ National Market System on the date of determination, the Fair Market Value per share shall be the closing price of a share of the Common Stock on said national securities exchange or NASDAQ National Market System on the business day immediately preceding the date of determination. If the Common Stock is traded in the over-the-counter market, the Fair Market Value per share shall be the closing price of a share on the business day immediately preceding the date of determination.

(b) *Stock Listed But No Shares Traded.* If the Common Stock is listed on a national securities exchange or on the NASDAQ National Market System but no shares of the Common Stock are traded on the date of determination but there were shares traded on dates within a reasonable period before the date of determination, the Fair Market Value shall be the closing price of a share of the Common Stock on the most recent date before the date of determination. If the Common Stock is regularly traded in the over-the-counter market but no shares of the Common Stock are traded on the date of determination (or if records of such trades are unavailable or burdensome to obtain) but there were shares traded on dates within a reasonable period before the date of determination, the Fair Market Value

shall be the average of the closing bid and asked prices of a share of the Common Stock on the most recent date before the date of determination on which trading occurred.

(c) *Stock Not Listed.* If the Common Stock is not listed on a national securities exchange or on the NASDAQ National Market System and is not regularly traded in the over-the-counter market, then the Committee shall determine the Fair Market Value of the Common Stock in a manner consistent with the requirements of Code Section 409A.

In any event, the determination of Fair Market Value shall be consistent with the requirements of Code Section 409A and, in the case of an ISO, in compliance with Code Section 422. The Committee's determination of Fair Market Value, which shall be made pursuant to the foregoing provisions, shall be final and binding for all purposes of this Plan.

2.18 *"Family Member"* means a Person who is a spouse, former spouse, child, stepchild, grandchild, parent, stepparent, grandparent, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother, sister, brother-in-law, or sister-in-law, including adoptive relationships, of the Participant, any Person sharing the Participant's household (other than a tenant or employee), a trust in which any one or more of these Persons have more than fifty percent (50%) of the beneficial interest, a foundation in which any one or more of these Persons (or the Participant) control the management of assets, and any other entity in which one or more of these Persons (or the Participant) own more than fifty percent (50%) of the voting interests.

2.19 *"Option"* means an option to purchase shares of Common Stock that is granted under Article V hereof and not an incentive stock option within the meaning of Code Section 422.

2.20 *"Participant"* means a Director who has been selected to receive an Award, or with respect to whom an Award is outstanding, under the Plan.

2.21 *"Person"* means any individual, organization, corporation, partnership, trust or other entity.

2.22 *"Plan"* means this ADTRAN, Inc. 2020 Directors Stock Plan.

2.23 *"Prior Plans"* means the:

- (a) ADTRAN, Inc. 2005 Directors Stock Option Plan (expired on May 17, 2015); and
- (b) ADTRAN, Inc. 2010 Directors Stock Plan (expired on December 31, 2019).

2.24 *"Restricted Stock"* means an Award of Common Stock that is subject to such conditions, restrictions and contingencies as the Committee determines and sets forth in the applicable Award Agreement.

2.25 *"Restricted Stock Unit"* or *"RSU"* means an Award of a unit representing one share of Common Stock that, upon satisfaction of certain conditions, restrictions and contingencies as the Committee determines and sets forth in the applicable RSU Agreement, shall result in the issuance of one share of Common Stock.

2.26 “**Rule 16b-3**” means Rule 16b-3 under Section 16(b) of the Exchange Act, as then in effect or any successor provision.

2.27 “**Separation from Service**” means a termination of service by a Participant with the Company and its Affiliates; provided, that if any Award that is treated as nonqualified deferred compensation (within the meaning of Code Section 409A), or any dividend or dividend credit thereon, is to be paid or distributed upon a Separation from Service, then a Separation from Service shall not occur unless it qualifies as a “separation from service” within the meaning of Code Section 409A. Unless otherwise stated in the applicable Award Agreement, a Participant’s change in position, duties or status (e.g., from director to consultant, director to employee) shall not result in interrupted or terminated service, so long as such Participant continues to provide services to the Company or an Affiliate and a “separation from service” under Code Section 409A is not deemed to have occurred. The determination of whether an authorized leave of absence or absence for military or government service or for any other reason shall constitute a Separation from Service for purposes of any Award granted under the Plan shall be determined by the Committee and, if applicable, in accordance with Code Section 409A, which determination shall be final and conclusive.

2.28 “**Securities Act**” means the Securities Act of 1933, as amended.

2.29 “**Total Remuneration**” means the total annual compensation (including Awards under the Plan) which may be paid to a Director for a given year (running from one annual shareholders’ meeting to the next), as may be modified from time to time, excluding any additional retainer for acting in certain capacities such as committee chair or lead director, and any additional meeting fees.

ARTICLE III Administration

3.1 *General Administration.* The Plan shall be administered and interpreted by the Committee (as designated pursuant to Section 3.2). Subject to the express provisions of the Plan, the Committee shall have authority to interpret the Plan, to prescribe, amend and rescind rules and regulations relating to the Plan, to determine the terms and provisions of the Award Agreements by which Awards shall be evidenced (which shall not be inconsistent with the terms of the Plan), and to make all other determinations necessary or advisable for the administration of the Plan, all of which determinations shall be final, binding and conclusive on all Persons.

3.2 *Appointment of Committee.* The Board shall appoint the Committee from among its non-employee members to serve at the pleasure of the Board. The Board from time to time may remove members from, or add members to, the Committee and shall fill all vacancies thereon.

3.3 *Organization.* The Committee may select one of its members as its chairman and shall hold its meetings at such times and at such places as it shall deem advisable. A majority of the Committee shall constitute a quorum, and such majority shall determine its actions. The Committee shall keep minutes of its proceedings and shall report the same to the Board at least annually.

3.4 *Powers of Committee.* The Committee may make one or more Awards under the Plan. The Committee shall decide which eligible Directors shall receive an Award and when to grant an Award, the type of Award that it shall grant and the number of shares of Common Stock covered by the Award, subject to the terms of the Plan. The Committee shall also decide the terms, conditions, performance criteria, restrictions and other provisions of the Award. The Committee shall act by a majority of its then members, at a meeting of the Committee or by unanimous written consent. The Committee shall keep adequate records concerning the Plan and the Committee's proceedings and acts in such form and detail as the Committee may decide.

3.5 *Delegation by Committee.* Unless prohibited by applicable law or the applicable rules of a stock exchange, the Committee may allocate all or some of its responsibilities and powers to any one or more of its members. The Committee also may delegate some or all of its administrative duties and powers to any employee or officer of the Company or its Affiliates. The Committee hereby delegates to the Company's Corporate Secretary and the Company's executive officers the authority to document any and all Awards made by the Committee under the Plan by execution of the appropriate Award Agreements. The Committee may revoke any such allocation or delegation at any time.

3.6 *Information to be Furnished to Committee.* In order for the Committee to discharge its duties, it may require the Company, its Affiliates, Participants and other Persons entitled to benefits under the Plan to provide it with certain data and information.

3.7 *Deferral Arrangement.* The Committee may permit or require the deferral of payment of any Award, subject to such rules and procedures as it may establish and in accordance with Code Section 409A. Unless otherwise provided in an Award Agreement, any such deferral will not include provisions for the payment or crediting of interest or dividend equivalents.

3.8 *Indemnification.* In addition to such other rights of indemnification that apply to them as members of the Board or a committee thereof, the Company shall indemnify the members of the Committee (and any designees of the Committee, as permitted under Section 3.5), to the extent permitted by applicable law, against reasonable expenses (including, without limitation, attorney's fees) actually and necessarily incurred in connection with the defense of any action, suit or proceeding, or in connection with any appeal, to which they or any of them may be a party by reason of any action taken or failure to act under or in connection with the Plan or any Award awarded hereunder, and against all amounts paid by them in settlement thereof (provided such settlement is approved to the extent required by and in the manner provided by the Articles of Incorporation or the Bylaws of the Company relating to indemnification of the members of the Board) or paid by them in satisfaction of a judgment in any such action, suit or proceeding, except in relation to such matters as to which it is adjudged in such action, suit or proceeding that such Committee member or members (or their designees) did not act in good faith and in a manner reasonably believed to be in or not opposed to the best interests of the Company.

ARTICLE IV

Stock; Eligibility and Annual Grants

4.1 *Common Stock Subject to Awards.* Common Stock subject to Awards and other provisions of the Plan shall consist of the following: (a) authorized but unissued shares of Common

Stock; (b) authorized and issued shares of Common Stock held by the Company in its treasury which have been reacquired by the Company; and (c) shares of Common Stock purchased by the Company in the open market.

4.2 *Authorized Shares.* Subject to adjustment in accordance with the provisions of Section 4.3, the maximum number of shares of Common Stock that may be issued under the Plan for Awards shall equal three hundred seventy three thousand (373,000) shares of Common Stock, adjusted as follows:

- (a) Each Award of stock Options, Restricted Stock or Restricted Stock Units granted under this Plan will reduce the number of authorized shares available under the Plan by one (1) share of Common Stock for each share underlying such Award.
- (b) Shares of Common Stock underlying an Award under this Plan or Prior Plans that is cancelled, terminated, expires without exercise, is forfeited, or lapses, for any reason shall again be available for issuance pursuant to Awards under this Plan.
- (c) Notwithstanding anything to the contrary herein, the following shares shall not again become available for issuance under the Plan: (1) shares of Common Stock withheld by, or otherwise remitted to, the Company as full or partial payment of the Exercise Price to the Company upon exercise of Options granted under the Plan; and (2) shares of Common Stock withheld by, or otherwise remitted to, the Company to satisfy a Participant's tax withholding obligations (if any) upon the lapse of restrictions on Restricted Stock or RSUs or upon the exercise of Stock Options or upon any other payment or issuance under the Plan.

The Committee shall establish appropriate methods for determining the number of shares available for issuance under the Plan and the number of shares that have been actually issued under the Plan at any time. In no event shall fractional shares of Common Stock be issued under the Plan.

4.3 *Effects of Changes in Capitalization.*

- (a) *Changes to Common Stock.* If the number of outstanding shares of Common Stock is increased or decreased or the shares of Common Stock are changed into or exchanged for a different number or kind of shares or other securities of the Company on account of any recapitalization, reclassification, stock split, reverse split, combination of shares, exchange of shares, stock dividend or other distribution payable in capital stock, or other increase or decrease in such shares effected without receipt of consideration by the Company occurring after the Effective Date ("**Equity Restructuring**"), the number and kinds of shares for which Awards may be granted under the Plan and/or the Exercise Price shall be adjusted
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proportionately and accordingly by the Committee; provided, that any such adjustment shall comply with Code Section 409A, if applicable. In addition, the number and kind of shares of Common Stock for which Awards are outstanding shall be adjusted proportionately and accordingly so that the proportionate interest of the Participant immediately following such event shall, to the extent practicable, be the same as immediately before such event. The conversion of any convertible securities of the Company shall not be treated as an increase in shares effected without receipt of consideration.

- (b) *Change of Control and Other Corporate Transactions.* In the event of a merger, consolidation, reorganization, extraordinary dividend, tender offer for Common Stock, Change of Control or other change in capital structure of the Company that is not an Equity Restructuring under subsection (a) above, the Committee may (but is not required to) make such adjustments with respect to Common Stock that may be issued pursuant to Awards and the number and/or Exercise Price of outstanding Awards and take such other action as it deems necessary or appropriate, including, without limitation, and subject to the requirements of Code Section 409A, if applicable:
- (1) making appropriate provision for the continuation of an Award by substituting on an equitable basis for the shares of Common Stock then subject to such Award either the consideration payable with respect to the outstanding shares of Common Stock in connection with the Change of Control or securities of any successor or acquiring entity;
 - (2) upon reasonable prior written notice to the Participant, providing that: (i) the Stock Options held by such Participant, to the extent then exercisable, must be exercised within a specified number of days after the date of such notice, at the end of which period the Stock Options shall terminate without payment, and/or (ii) a grant of Restricted Stock and/or RSUs Stock must be accepted (to the extent then subject to acceptance) within a specified number of days after the date of such notice, at the end of which period the offer of the Restricted Stock and/or RSUs shall terminate;
 - (3) terminating an Award, whether vested or unvested, in exchange for a payment equal to (i) for Restricted Stock and RSUs, the Fair Market Value of the shares of Common Stock subject to the Award or (ii) for Stock Options, the excess of the Fair Market Value of the shares of Common Stock subject to the Award over the Exercise Price, as applicable;
 - (4) providing that an Award shall become (as applicable) fully vested and exercisable, and any vesting period or restrictions shall lapse, immediately prior to the Change of Control; and/or
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- (5) with respect to an Award subject to performance measures, providing that any incomplete performance periods shall end on the date of such Change of Control (or other corporate transaction described in this subsection (b)), and the Committee shall cause the Award to be settled based upon the higher of: (i) the Participant's actual attainment of performance goals for the performance period through the date of the Change of Control (or other corporate transaction described in this subsection (b)) or (ii) the performance target award.

Notwithstanding anything to the contrary, an Award having an Exercise Price equal to or greater than the Fair Market Value of the consideration to be paid per share of Common Stock in the Change of Control may be canceled without payment of consideration to the applicable Participant.

- (c) *Limits on Adjustments.* Any issuance by the Company of stock of any class other than the Common Stock, or securities convertible into shares of stock of any class, shall not affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares of the Common Stock subject to any Award, except as specifically provided otherwise in this Plan. The grant of Awards under the Plan shall not affect in any way the right or authority of the Company to make adjustments, reclassifications, reorganizations or changes of its capital or business structure or to merge, consolidate or dissolve, or to liquidate, sell or transfer all or any part of its business or assets. No fractional shares or other securities shall be issued pursuant to any such adjustment, and any fractions resulting from any such adjustment shall be eliminated in each case by rounding downward to the nearest whole share with no cash payment due therefor. If the Company issues any rights to subscribe for additional shares pro rata to holders of outstanding shares of the class or classes of stock then set aside for the Plan, then each Participant shall be entitled to the same rights on the same basis as holders of outstanding shares with respect to such portion of the Participant's Award as is exercised on or prior to the record date for determining shareholders entitled to receive or exercise such rights. All adjustments the Committee makes under this Plan shall be final and conclusive.

4.4 *Individuals Eligible for Awards.* The individuals eligible to receive Awards hereunder shall be solely those individuals who are Directors and who are not employees of the Company or any of its Affiliates.

4.5 *Annual Grants.* All Awards granted under this Section shall comply in all respects with the terms and conditions of the Plan.

(a) *Initial Grants.* Upon initially becoming a Director, an individual shall be automatically entitled to receive an Award with a Fair Market Value (in the case of Options, as such value is determined by the Board in its sole discretion) on the date of grant equal

to (i) 50% of the annual grant detailed below in subsection (b) for the calendar year prior to the calendar year in which the individual initially becomes a Director or (ii) such other lesser amount as determined in the discretion of the Board. A Director who has previously served as a Director and who again becomes a Director shall not be entitled to an initial grant pursuant to this subsection (a). Only a Director who has never served as a Director shall be entitled to an initial grant pursuant to this subsection (a). An individual who receives an initial grant hereunder shall also be entitled to receive an annual grant under subsection (b) for the calendar year in which he initially becomes a Director.

(b) *Annual Grants.* As of December 31 of each calendar year in which an individual is a Director, and provided such individual is a Director on such date, such individual shall be automatically entitled to receive an Award with a Fair Market Value (in the case of Options, as such value is determined by the Board in its sole discretion) on the date of grant equal to (i) 50% of the Director's Total Remuneration for such calendar year (rounded to the nearest whole share as of such date) or (ii) such other lesser amount as determined in the discretion of the Board; but in no event shall any Award have a Fair Market Value greater than \$150,000.

(c) *Form of Grants.* All Awards shall be in the form of Restricted Stock unless the Board, upon recommendation by the Committee, determines that Awards shall be in the form of Options or Restricted Stock Units. Any determination to grant Awards in a form other than Restricted Stock shall be made, in the case of initial grants under subsection (a), prior to the date the Director becomes entitled to the Award, and, in the case of annual grants under subsection (b), before December 31 for Awards for the calendar year ending that December 31.

ARTICLE V Stock Options

5.1 *Award Agreement.* An Award of an Option shall be evidenced by an Award Agreement that specifies the following terms and any additional terms and conditions determined by the Committee and not inconsistent with the Plan: (a) the name of the Participant; (b) the total number of shares of Common Stock to which the Option pertains; (c) the Exercise Price of the Option; (d) the date as of which the Committee granted the Option; (e) the requirements for the Option to become exercisable, such as continuous service, time-based schedule, period and goals for performance measures to be satisfied, additional consideration, etc.; (f) the expiration date of the Option; and (g) the Beneficiary of the Participant.

5.2 *Vesting.* Unless a later date is provided in a Participant's Award Agreement, each Option shall first become exercisable (*i.e.*, vested) with respect to 100% of the shares subject to such Option as of the first anniversary of the date the Option is granted and, prior to said date, the Option shall be unexercisable in its entirety. Notwithstanding the foregoing, all Options granted to a Participant shall become immediately vested and exercisable for 100% of the number of shares subject to the Options upon the Participant's becoming Disabled or upon his or her death or upon a Change of Control. In addition, the Committee may in its discretion in connection with a Participant's Separation from Service, accelerate vesting of the Option or permit continued vesting on the vesting schedule set forth in the Participant's Award Agreement. Other than as provided in

the preceding sentences, if a Participant Separates from Service, his or her rights with regard to all non-vested Options shall cease immediately.

5.3 *Exercise Price.* The Exercise Price of the shares of Common Stock underlying each Option shall be the Fair Market Value of the Common Stock on the date the Option is granted.

5.4 *Term of Options.* The terms of Options granted under the Plan shall commence on the date of grant and shall expire ten (10) years after the date the Option is granted.

5.5 *Terms of Exercise.* The exercise of an Option may be for less than the full number of shares of Common Stock subject to such Option, but such exercise shall not be made for less than (a) 100 shares or (b) the total remaining shares subject to the Option, if such total is less than 100 shares. Subject to the other restrictions on exercise set forth herein, the unexercised portion of an Option may be exercised at a later date.

5.6 *Method of Exercise.* All Options granted hereunder shall be exercised by written (or electronic) notice on a form prescribed by the Committee and directed to the Secretary of the Company at its principal place of business or to such other Person as the Committee may direct. Each notice of exercise shall identify the Option that the Participant is exercising (in whole or in part) and shall be accompanied by payment of the Exercise Price for the number of shares specified in such notice and by any documents required by Section 8.1. The Company shall make delivery of such shares (electronically or in paper form) within a reasonable period of time; provided that, if any law or regulation requires the Company to take any action (including, but not limited to, the filing of a registration statement under the Securities Act and causing such registration statement to become effective) with respect to the shares specified in such notice before the issuance thereof, then the date of delivery of such shares shall be extended for the period necessary to take such action.

5.7 *Medium and Time of Payment.* The Participant must pay the full Exercise Price for shares of Common Stock purchased upon the exercise of any Option, and applicable withholding taxes (if any), at the time of such exercise by one of the following forms of payment:

(a) in cash or cash equivalents acceptable to the Company;

(b) delivery (on a form acceptable to the Committee) of an irrevocable direction to a licenses securities broker acceptable to the Company to sell shares of Common Stock and to deliver all or part of the sales proceeds to the Company in payment of the Exercise Price;

(c) delivery of shares of Common Stock already owned by the Participant (and for which the Participant has good title free and clear of any liens and encumbrances) having a Fair Market Value on the date of surrender equal to the aggregate Exercise Price and taxes due;

(d) with the Committee's approval, having the Company withhold shares of Common Stock that otherwise would be acquired on exercise having a Fair Market Value equal to the aggregate Exercise Price; or

(e) any combination of the above forms or any other form of payment permitted by the Committee.

5.8 *Effect of Termination of Service, Disability or Death.* Except as provided in subsections (a), (b) or (c) below or where the Committee approves an extension as described at the end of this Section, no Option shall be exercisable following a Participant's Separation from Service.

(a) *Termination of Service.* In the event a Participant Separates from Service for any reason other than death or Disability, any Option or unexercised portion thereof granted to him or her shall terminate on and shall not be exercisable after the earliest to occur of the following: (1) the expiration date of the Option; (2) three months after the date the Participant Separates from Service (except as provided in subsection (c)); or (3) the date on which the Company gives notice to such Participant of termination of his or her service as a Director if service is terminated by the Company's shareholders for Cause (a Participant's resignation in anticipation of termination of service by the Company or by its shareholders for Cause shall constitute a notice of termination by the Company). Notwithstanding the foregoing, in the event that a Participant Separates from Service for a reason other than death or Disability, Cause or voluntary resignation at any time after a Change of Control, the term of all Options of that Participant shall be extended through the maximum term as described in Section 5.5 above. Prior to the earlier of the dates specified in the preceding sentences of this subsection (a), the Option shall be exercisable only in accordance with its terms and only for the number of shares exercisable on the date of such Separation from Service.

(b) *Disability.* Upon the Participant's Separation from Service due to Disability, any Option or unexercised portion thereof granted to him or her which is otherwise exercisable shall terminate on and shall not be exercisable after the earlier to occur of the following: (1) the expiration date of such Option; or (2) one year after the date on which such Participant Separates from Service due to Disability (except as provided in subsection (c)). Prior to the earlier of such dates, such Option shall be exercisable only in accordance with its terms and only for the number of shares exercisable on the date such Participant Separates from Service due to Disability.

(c) *Death.* In the event of the death of the Participant (1) while he or she is a Director, (2) within three months after the date of the Participant's Separation from Service (for a reason other than Cause) as provided in subsection (a) above, or (3) within one year after the date of the Participant's Separation from Service due to his or her Disability, any Option or unexercised portion thereof granted to him or her which is otherwise exercisable may be exercised by the Participant's Beneficiary at any time prior to the expiration of one year from the date of death of such Participant, but in no event later than the date of expiration of the Option. Such exercise shall be effected pursuant to the terms of this Section as if such Beneficiary is the named Participant.

Notwithstanding the foregoing, the Committee may, in its discretion, in connection with a Participant's Separation from Service, permit an Award to remain exercisable for the full exercise period set forth in the Award Agreement or the maximum term as described in

Section 5.5 above, so long as such extension does not violate Code Section 409A or other applicable laws.

5.9 *Restrictions on Transfer and Exercise of Options.* No Option shall be assignable or transferable by the Participant except by transfer to a Beneficiary upon the death of the Participant, and any purported transfer (other than as excepted above) shall be null and void. After the death of a Participant and upon the death of the Participant's Beneficiary, an Option shall be transferable only by will or by the laws of descent and distribution. During the lifetime of a Participant, the Option shall be exercisable only by him; provided, however, that in the event the Participant is incapacitated and unable to exercise Options, such Options may be exercised by such Participant's legal guardian, legal representative, fiduciary or other representative whom the Committee deems appropriate based on applicable facts and circumstances.

5.10 *Rights as a Shareholder.* A Participant shall have no rights as a shareholder with respect to shares covered by his or her Option until date of the issuance of the shares to him or her and only after the Exercise Price of such shares is fully paid. Unless specified in Article VII, no adjustment will be made for dividends or other rights for which the record date is prior to the date of such issuance.

5.11 *No Obligation to Exercise Option.* The granting of an Option shall impose no obligation upon the Participant to exercise such Option.

ARTICLE VI Restricted Stock and Restricted Stock Units

6.1 *Award Agreement.* When the Committee awards Restricted Stock or Restricted Stock Units under the Plan, it shall prepare (or cause to be prepared) an Award Agreement, effective as of the date of grant, that shall specify the number of Shares subject to the Award, any vesting or other restrictions that apply to the Award, and such other provisions as the Committee may determine, which are not inconsistent with the terms and provisions of the Plan.

6.2 *Vesting.* Unless otherwise provided in a Participant's Award Agreement, each Award of Restricted Stock or Restricted Stock Units shall become vested (*i.e.*, all restrictions shall lapse) on the first anniversary of the date of grant; provided that if the Participant incurs a Separation from Service, his rights with regard to all non-vested Restricted Stock or Restricted Stock Units shall cease immediately. Notwithstanding the foregoing, Restricted Stock or Restricted Stock Units subject to time-based vesting shall become 100% vested immediately upon the death or Disability of the Participant or upon a Change of Control of the Company. In addition, the Committee may in its discretion in connection with a Participant's Separation from Service, accelerate vesting of Restricted Stock or Restricted Stock Units or permit continued vesting on the vesting schedule set forth in the Participant's Award Agreement; *provided, however*, that any such extension must comply with Code Section 409A and the delay period (as defined in Section 10.13) for specified employees.

6.3 *Delivery of Restricted Stock.*

(a) *Issuance.* The Company shall issue the shares of Restricted Stock within a reasonable period of time after approval of the Award Agreement; provided that if any law

or regulation requires the Company to take any action (including, but not limited to, the filing of a registration statement under the Securities Act and causing such registration statement to become effective) with respect to such shares before the issuance thereof, then the date of delivery of the shares shall be extended for the period necessary to take such action. As long as any restrictions apply to the Restricted Stock, the shares of Restricted Stock shall be held by the Committee in uncertificated form in a restricted account.

(b) *Legend.* Unless the certificate representing shares of the Restricted Stock is deposited with a custodian (as described in this Section), each certificate shall bear the following legend (in addition to any other legend required by law):

“The transferability of this certificate and the shares represented hereby are subject to the restrictions, terms and conditions (including forfeiture and restrictions against transfer) contained in the ADTRAN, Inc. 2020 Director Stock Plan and an Award Agreement dated _____, _____, between _____ and ADTRAN, Inc. The Plan and the Award Agreement are on file in the office of the Corporate Secretary of ADTRAN, Inc.”

Such legend shall be removed or canceled from any certificate evidencing shares of Restricted Stock as of the date that such shares become nonforfeitable.

(c) *Deposit with Custodian.* As an alternative to delivering a stock certificate to the Participant, the Committee may deposit or transfer such shares electronically with a custodian designated by the Committee. The Committee shall cause the custodian to issue a receipt for the shares to the Participant for any Restricted Stock so deposited. The custodian shall hold the shares and deliver the same to the Participant in whose name the Restricted Stock evidenced thereby is registered only after such shares become nonforfeitable.

6.4 *Restrictions on Transfer.* No Restricted Stock or Restricted Stock Unit shall be assignable or transferable by the Participant except by transfer to a Beneficiary upon the death of the Participant, and any purported transfer (other than as excepted above) shall be null and void. After the death of a Participant and upon the death of the Participant's Beneficiary, the Restricted Stock or Restricted Stock Unit (as applicable) shall be transferable only by will or by the laws of descent and distribution.

6.5 *Settlement of RSUs.* Except as otherwise provided in the Award Agreement and in accordance with Code Section 409A, RSUs shall generally be settled in shares of Common Stock immediately following the date they vest; *provided* that the Committee may specify in the applicable Award Agreement that settlement shall be in cash or in a combination of Common Stock and cash.

6.6 *Shareholder Rights.* No shareholder rights shall inure to a Participant who has been awarded Restricted Stock or Restricted Stock Units until the restrictions on the Restricted Stock lapse or actual shares of Common Stock are issued upon settlement of the Restricted Stock Units, as applicable.

6.7 *Dividend Credits.* Unless otherwise provided in the Participant's Award Agreement, (a) any cash dividends paid on Common Stock underlying the Participant's Restricted Stock or Restricted Stock Units during the period of restriction shall be credited to a bookkeeping account which shall be hypothetically invested in whole shares of Common Stock; and (b) upon the lapse of restrictions on the Restricted Stock or Restricted Stock Units, the Company will immediately pay the Participant the accumulated value of the bookkeeping account in the form of whole shares of Common Stock, plus any remaining cash.

ARTICLE VII Adjustments

7.1 *Recapitalization.* In the event that the outstanding shares of the Common Stock of the Company are hereafter increased or decreased or changed into or exchanged for a different number or kind of shares or other securities of the Company by reason of a recapitalization, reclassification, stock split, combination of shares or dividend payable in shares of the Common Stock, the following rules shall apply:

(a) The Committee shall make an appropriate adjustment in the number and kind of shares available for the granting of Awards under the Plan and in the number and kind of shares granted as part of the annual grants.

(b) The Committee also shall make an appropriate adjustment in the number and kind of shares underlying outstanding Awards, or portions thereof, that remain unexercised or subject to restriction; any such adjustment in any outstanding Options shall be made without change in the total price applicable to the unexercised portion of such Option and with a corresponding adjustment in the Exercise Price per share. No fractional shares shall be issued or optioned in making the foregoing adjustments, and the number of shares available under the Plan or the number of shares subject to any outstanding Awards shall be the next lower number of shares, rounding all fractions downward.

(c) If any rights or warrants to subscribe for additional shares are given *pro rata* to holders of outstanding shares of the class or classes of stock then set aside for the Plan, each Participant shall be entitled to the same rights or warrants on the same basis as holders of the outstanding shares with respect to such portion of his Award for which shares have not yet been issued in his or her name on or prior to the record date or which portion is otherwise not included in the determination of shareholders entitled to receive or exercise such rights or warrants.

7.2 *Reorganization.* Subject to any required action by the shareholders, if the Company shall be a party to any reorganization involving merger, consolidation, acquisition of the stock or acquisition of the assets of the Company which does not constitute a Change of Control, and if the agreement memorializing such reorganization so provides, any outstanding Award granted under the Plan shall pertain to and apply, with appropriate adjustment as determined by the Committee, to the securities of the resulting corporation to which a holder of the number of shares of the Common Stock subject to such Award would have been entitled. If such agreement does not so provide: (a) any or all Options granted hereunder shall become immediately nonforfeitable and fully exercisable or vested (to the extent permitted under federal or state securities laws) and are

to be terminated after giving at least 30 days' notice to the Participants to whom such Options have been granted and (b) any or all unvested Awards of Restricted Stock or Restricted Stock Units hereunder shall become immediately fully vested, nonforfeitable and/or payable.

7.3 *Dissolution and Liquidation.* If the Board adopts a plan of dissolution and liquidation that is approved by the shareholders of the Company, the Committee shall give each Participant written notice of such event at least ten (10) days prior to its effective date, and the rights of all Participants shall become immediately nonforfeitable and fully exercisable or vested (to the extent permitted under federal or state securities laws).

7.4 *Limits on Adjustments.* Any issuance by the Company of stock of any class, or securities convertible into shares of stock of any class, shall not affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares of the Common Stock subject to any Award, except as specifically provided otherwise in this Article. The grant of Awards pursuant to the Plan shall not affect in any way the right or power of the Company to make adjustments, reclassifications, reorganizations or changes of its capital or business structure or to merge, consolidate or dissolve, or to liquidate, sell or transfer all or any part of its business or assets. All adjustments the Committee makes under this Article shall be conclusive.

7.5 *No Cashouts or Repricings.* Except in connection with a corporate transaction involving the Company (including, without limitation, any stock dividend, stock split, extraordinary cash dividend, recapitalization, reorganization, merger, consolidation, split-up, spin-off, combination, or exchange of shares), the terms of outstanding Awards may not be amended to reduce the Exercise Price of outstanding Options or cancel outstanding Options in exchange for cash, other Awards or Options with an Exercise Price that is less than the Exercise Price of the original Options without stockholder approval.

ARTICLE VIII

Agreement by Participant and Securities Registration

8.1 *Agreement.* If, in the opinion of counsel to the Company, such action is necessary or desirable, no Award shall be granted to any Participant and no Option shall be exercisable by a Participant unless, at the time of grant or exercise, as applicable, such Participant (a) represents and warrants that he or she will acquire the Common Stock for investment only and not for purposes of resale or distribution, and (b) makes such further representations and warranties as are deemed necessary or desirable by counsel to the Company with regard to holding and resale of the Common Stock. The Participant shall, upon the request of the Committee, execute and deliver to the Company an agreement or affidavit to such effect. Should the Committee have reasonable cause to believe that such Participant did not execute such agreement or affidavit in good faith, the Company shall not be bound by the grant of the Award or by the exercise of an Option. All certificates representing shares of Common Stock issued pursuant to the Plan shall be marked with the following restrictive legend or similar legend, if such marking, in the opinion of counsel to the Company, is necessary or desirable:

The shares represented by this certificate have not been registered under the Securities Act of 1933, as amended, or the securities laws of any state and are held by an "affiliate" (as such term is defined in Rule 144 promulgated by the Securities

and Exchange Commission under the Securities Act of 1933, as amended) of the Company. Accordingly, these shares may not be sold, hypothecated, pledged or otherwise transferred except (i) pursuant to an effective registration statement under the Securities Act of 1933, as amended, and any applicable securities laws or regulations of any state with respect to such shares, (ii) in accordance with Securities and Exchange Commission Rule 144, or (iii) upon the issuance to the Company of a favorable opinion of counsel or the submission to the Company of such other evidence as may be satisfactory to the Company that such proposed sale, assignment, encumbrance or other transfer will not be in violation of the Securities Act of 1933, as amended, or any applicable securities laws of any state or any rules or regulations thereunder. Any attempted transfer of this certificate or the shares represented hereby which is in violation of the preceding restrictions will not be recognized by the Company, nor will any transferee be recognized as the owner thereof by the Company.

If the Common Stock is (A) held by a Participant who ceases to be an "affiliate," as that term is defined in Rule 144 of the Securities Act, or (B) registered under the Securities Act and all applicable state securities laws and regulations as provided in Section 8.2, the Committee, in its discretion and with the advice of counsel, may dispense with or authorize the removal of the restrictive legend set forth above or the portion thereof which is inapplicable.

8.2 *Registration.* In the event that the Company in its sole discretion shall deem it necessary or advisable to register, under the Securities Act or any state securities laws or regulations, any shares with respect to which Awards have been granted hereunder, then the Company shall take such action at its own expense before delivery of the certificates representing such shares to a Participant. In such event, and if the shares of Common Stock of the Company shall be listed on any national securities exchange (as such term is defined by the Exchange Act) or on the NASDAQ National Market System at the time of the removal of restrictions from an Award or exercise of any Option, the Company shall make prompt application at its own expense for the listing on such stock exchange or the NASDAQ National Market System of the shares of Common Stock to be issued.

ARTICLE IX

Amendment and Termination

9.1 *Amendment and Termination By the Board.* Subject to Code Section 409A and Section 9.2 below, the Board shall have the power at any time to add to, amend, modify or repeal any of the provisions of the Plan, to suspend the operation of the entire Plan or any of its provisions for any period or periods or to terminate the Plan in whole or in part. In the event of any such action, to the extent it determines necessary to administer the Plan, the Committee shall prepare written procedures which, when approved by the Board, shall govern the administration of the Plan resulting from such addition, amendment, modification, repeal, suspension or termination. No Award Agreement may be amended to reprice or constructively reprice any Award.

9.2 *Restrictions on Amendment and Termination.* Notwithstanding the provisions of Section 9.1 above, the following restrictions shall apply to the Board's authority under Section 9.1 above:

(a) *Prohibition Against Adverse Effects on Outstanding Awards.* No addition, amendment, modification, repeal, suspension or termination shall adversely affect, in any way, the rights of a Participant who has an outstanding Award without the consent of such Participant. The Committee shall not amend any Award Agreement that it previously has authorized under the Plan that adversely affects the Participant's rights or benefits under an Award without the written (or electronic) consent of the Participant holding such Award.

(b) *Shareholder Approval Required for Certain Modifications.* No modification or amendment of the Plan may be made without the prior approval of the shareholders of the Company if such approval is necessary with respect to tax, securities or other applicable laws or the applicable rules or regulations of any stock exchange or the NASDAQ National Market System.

ARTICLE X Miscellaneous Provisions

10.1 *Beneficiary.* Upon a Participant's death, the Participant's Beneficiary shall be determined as follows:

(a) *Designation of Beneficiary.* A Participant's Beneficiary shall be the Person who is last designated in writing by the Participant as such Participant's Beneficiary hereunder. A Participant shall designate his or her original Beneficiary in writing (on paper or electronically) on the form provided by the Committee. Any subsequent modification of the Participant's Beneficiary shall be on the form provided by the Committee. A designation of Beneficiary shall be effective when the properly completed form is received *and* accepted by the Committee (or its designee), as determined in the Committee's (or its delegate's) sole discretion.

(b) *No Designated Beneficiary.* If no Beneficiary has been validly designated by a Participant, or the Beneficiary designated by the Participant is no longer living or in existence at the time of the Participant's death, then the Participant's Beneficiary shall be deemed to be the Participant's legal spouse under applicable state law, or if none, the Participant's estate.

(c) *Designation of Multiple Beneficiaries.* A Participant may, consistent with subsection (a) above, designate more than one Person as a Beneficiary if, for each such Beneficiary, the Participant also designates a percentage of the Participant's Award to be transferred to such Beneficiary upon the Participant's death. Unless otherwise specified by the Participant, any designation by the Participant of multiple Beneficiaries shall be interpreted as a designation by the Participant that each such Beneficiary (to the extent such Beneficiary is alive or in existence as of the Participant's date of death) should be entitled to an equal percentage of the Participant's Award. Each Beneficiary shall have complete and non-joint rights with respect to the portion of a Participant's Award to be transferred to such Beneficiary upon the Participant's death.

(d) *Contingent Beneficiaries.* A Participant may designate one or more contingent Beneficiaries to receive all or a portion of the Participant's Award in the event

that all of the Participant's original Beneficiaries should predecease the Participant. In the event that one or more original Beneficiaries predeceases the Participant, then the remaining original Beneficiaries specified above shall be entitled to the share of such deceased Beneficiary in direct proportion to their designated shares.

10.2 *Application of Funds.* The proceeds received by the Company from the sale of the Common Stock subject to the Options granted hereunder will be used for general corporate purposes.

10.3 *Notices.* In order for a Participant or other individual to give notice or other communication to the Committee, the notice or other communication shall be in the form specified by the Committee and delivered to the location designated by the Committee in its sole discretion.

10.4 *Compliance with Rule 16b-3.* This Plan is intended to be in compliance with the requirements of Rule 16b-3 as promulgated under Section 16 of the Exchange Act.

10.5 *Governing Law.* The Plan shall be governed by and shall be construed in accordance with the laws of the State of Alabama, without regard to any choice of law principles thereof or of any other jurisdiction.

10.6 *Additional Provisions By Committee.* The Award Agreements authorized under the Plan may contain such other provisions as the Committee shall deem advisable.

10.7 *Plan Document Controls.* In the event of any conflict between the provisions of an Award Agreement and the Plan, the Plan shall control.

10.8 *Gender and Number.* Wherever applicable, the masculine pronoun shall include the feminine pronoun, and the singular shall include the plural.

10.9 *Headings.* The titles in this Plan are inserted for convenience of reference; they constitute no part of the Plan and are not to be considered in the construction hereof.

10.10 *Legal References.* Any reference in this Plan to a provision of law which is later revised, modified, finalized or redesignated, shall automatically be considered a reference to such revised, modified, finalized or redesignated provision of law.

10.11 *No Rights to Perform Services.* Nothing contained in the Plan, or any modification thereof, shall be construed to give any individual any rights to perform services for the Company or any of its Affiliates.

10.12 *Unfunded Arrangement.* The Plan shall not be funded, and except for reserving a sufficient number of authorized shares to the extent required by law to meet the requirements of the Plan, the Company shall not be required to establish any special or separate fund or to make any other segregation of assets to assure the payment of any grant under the Plan.

10.13 *Clawback/Recovery.* Subject to Section 409A, all Awards granted under the Plan will be subject to clawback, recovery, or recoupment, as determined by the Committee in its sole discretion, including but not limited to a reacquisition right with respect to previously granted

Restricted Stock or other cash or property, (a) as provided in the Company's forfeiture policy implemented by the Company from time to time and applicable to all officers and Directors of the Company on the same terms and conditions, including without limitation, any such policy adopted to comply with the requirements of applicable law or the rules and regulations of any stock exchange applicable to the Company, (b) as is required by the Dodd-Frank Wall Street Reform and Consumer Protection Act, or other applicable law, (c) as provided in the applicable Award Agreement, and/or (d) to the extent that the Committee determines that the Participant has been involved in the altering, inflating, and/or inappropriate manipulation of performance/financial results or any other infraction of recognized ethical business standards, or that the Participant has willfully engaged in any activity injurious to the Company, or the Participant's Separation from Service with the Company or its Affiliates is for Cause. *Compliance with Section 409A of the Code.* Unless otherwise expressly provided for in an Award Agreement, the Plan and Award Agreements will be interpreted to the greatest extent possible in a manner that makes the Plan and the Awards granted hereunder exempt from Section 409A of the Code, and, to the extent not so exempt, compliant with Section 409A of the Code. If the Committee determines that any Award granted hereunder is not exempt from and is therefore subject to Section 409A of the Code, the Award Agreement evidencing such Award will incorporate the terms and conditions necessary to avoid the consequences specified in Section 409A(a)(1) of the Code, and to the extent an Award Agreement is silent on terms necessary for compliance, such terms are hereby incorporated by reference into the Award Agreement. Notwithstanding anything to the contrary in this Plan (and unless the Award Agreement specifically provides otherwise), if a Participant holding an Award that constitutes "deferred compensation" under Section 409A of the Code is a "specified employee" for purposes of Section 409A of the Code, no distribution or payment of any amount that is due because of a "separation from service" (as defined in Section 409A of the Code without regard to alternative definitions thereunder) will be issued or paid before the date that is six (6) months following the date of such Participant's "separation from service" (as defined in Section 409A of the Code without regard to alternative definitions thereunder) or, if earlier, the date of the Participant's death, unless such distribution or payment can be made in a manner that complies with Section 409A of the Code, and any amounts so deferred will be paid in a lump sum on the day after such six (6) month period elapses, with the balance paid thereafter on the original schedule.

**ADOPTED BY BOARD OF DIRECTORS
ON MARCH 6, 2020,
EFFECTIVE AS OF MAY 13, 2020**

CERTIFICATIONS

I, Thomas R. Stanton, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of ADTRAN, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 7, 2020

/s/ Thomas R. Stanton

Thomas R. Stanton

Chief Executive Officer and Chairman of the Board

CERTIFICATIONS

I, Michael Foliano, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of ADTRAN, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 7, 2020

/s/ Michael Foliano

Michael Foliano

Senior Vice President of Finance and
Chief Financial Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of ADTRAN, Inc. (the "Company") on Form 10-Q for the quarter ending June 30, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Thomas R. Stanton, Chief Executive Officer and Chairman of the Board of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Thomas R. Stanton

Thomas R. Stanton
Chief Executive Officer and Chairman of the Board
August 7, 2020

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of ADTRAN, Inc. (the "Company") on Form 10-Q for the quarter ending June 30, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Michael Foliano, Senior Vice President of Finance and Chief Financial Officer, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Michael Foliano

Michael Foliano
Senior Vice President of Finance and
Chief Financial Officer
August 7, 2020