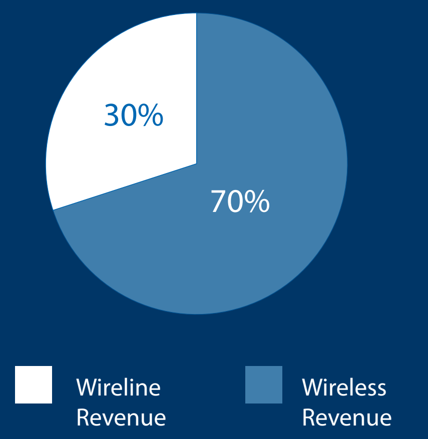
ATLANTIC TELE-NETWORK

Annual Report 2013

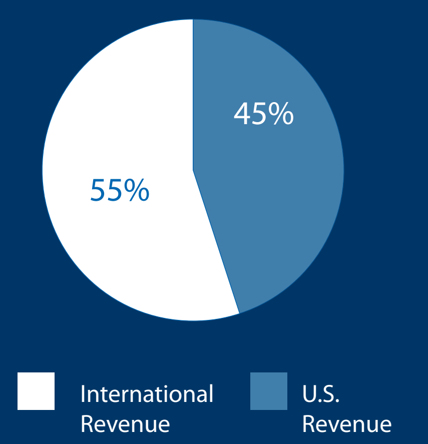
FINANCIAL HIGHLIGHTS

Annual Dividend Per Share

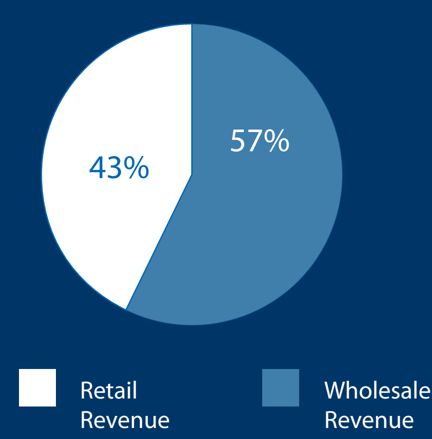
Wireline vs. Wireless Revenue



Domestic vs. International Revenue

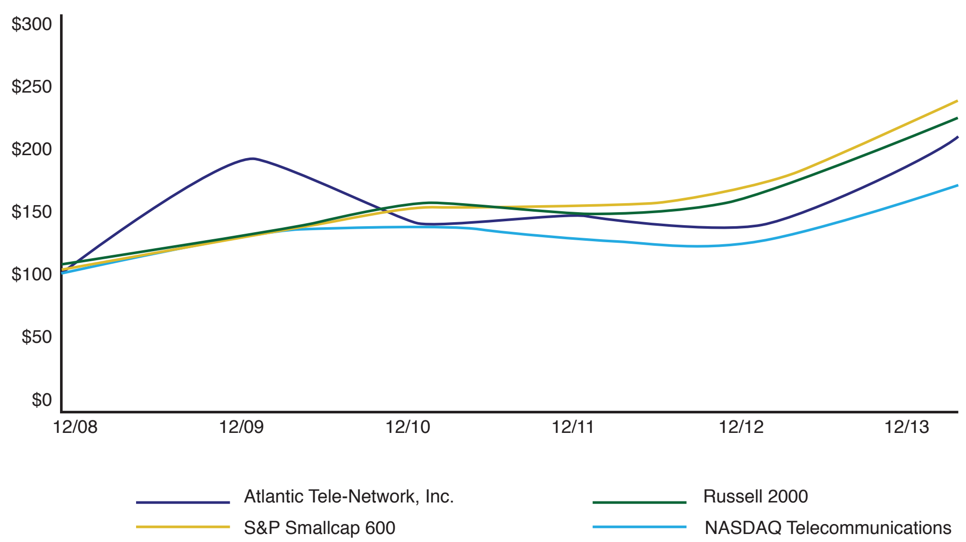


Retail vs. Wholesale Wireless Revenue



Comparison of 5 Year Cumulative Total Return[1]

Among Atlantic Tele-Network, Inc., the Russell 2000 Index, the S&P Smallcap 600 Index, and the NASDAQ Telecommunications Index

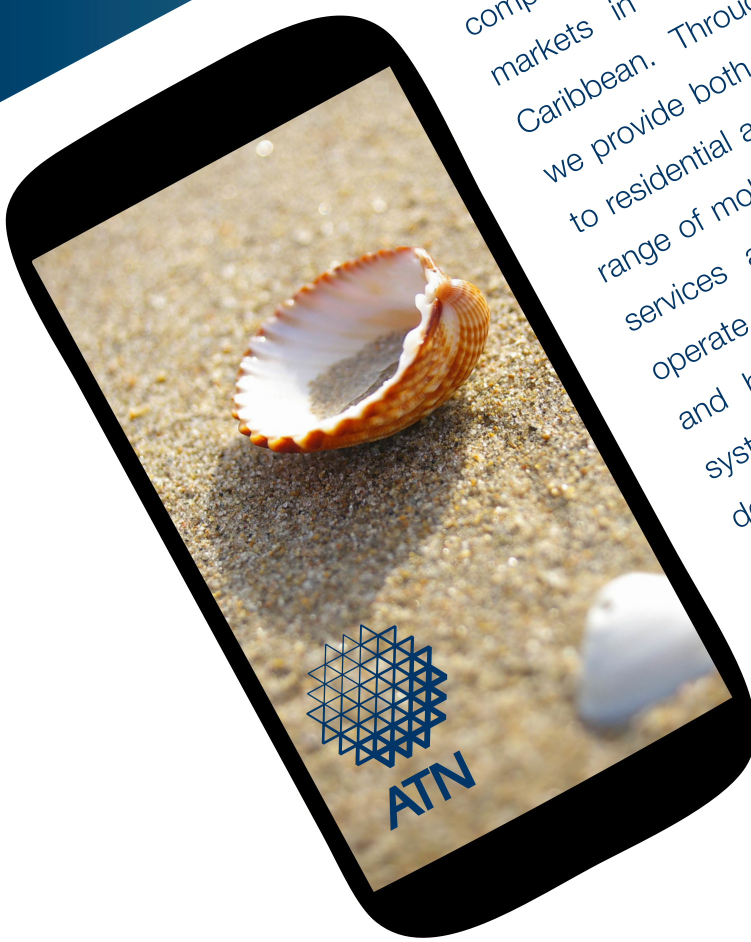


[1] Assumes $100 invested on 12/31/08 in stock or index, including reinvestment of dividends, for fiscal years ended December 31. The stock price performance included in this graph is not necessarily indicative of future stock price performance.

LOOKING FORWARD TO NEW INVESTMENTS

EXPLORING OPPORTUNITIES

Atlantic Tele-Network (ATN) is a telecommunications company that provides service to under-served markets in North America, Bermuda and the Caribbean. Through our operating subsidiaries, we provide both wireless and wireline connectivity to residential and business customers, including a range of mobile wireless solutions, local exchange services and broadband Internet services. We operate advanced wireless and wireline networks and both terrestrial and submarine fiber optic systems. We are proud of our track record of delivering strong financial results, and consistently paying dividends, while at the same time growing both our business and shareholder value.



FELLOW STOCKHOLDERS

CellOne employees showing support at the annual Bermuda End-to-End charity event.

We take pride in generating strong and consistent returns for our stockholders, and the 2013 year was a particular success in that regard. It proved to be a landmark year, as we successfully completed the sale of our U.S. retail wireless operations and claimed a substantial return on that investment on behalf of our stockholders. While we're pleased with the value that this transaction created for our stockholders, it is important to note that our remaining operations continue to perform well.

With each quarter, the results of our continuing operations reflected steady revenue growth and consistently healthy margins. Highlights for the year included year-over-year increases in revenue, operating income and Adjusted EBITDA[1] by 5%, 13% and 16%, respectively. In addition, net income from continuing operations attributable to our stockholders increased by approximately 40% to $28.9 million, or $1.83 per diluted share. These increases were driven primarily by growth and margin improvements in our U.S. Wireless and Island Wireless segments. Overall net income for the 2013 year was $311.7 million, or $19.71 per diluted share. This extraordinary amount was the result of the sale of our U.S. retail wireless operations, which closed in late September 2013. The continued financial health of our Company also led our Board to announce the 15th consecutive annual increase in the dividend paid on the Company's common stock, which is now at an annual rate of $1.08 per year.

The investments we made in our remaining U.S. wireless operations, which now consist mainly of our legacy wholesale roaming business operations, helped to yield this rekindling of growth. While last year we predicted some increase in revenue in this business, we were pleasantly surprised that not only did 2013 growth exceed our expectations, but it also outweighed our forecasted decrease in revenue due to the sale of our Midwestern network at the end of 2012. Indeed, thanks to the timing of that transaction, we were able to redeploy the proceeds of the sale to cover roughly half of the capital expenditures spent in 2013 to expand and improve our U.S. wireless network. This build increased the capacity and speed of our network, allowing us to take advantage of increasing data roaming volumes that more than offset the decrease in revenue due to the sale and the continued decline of voice traffic in our networks.

Islandcom employee at our Turks and Caicos Islands headquarters.

Cyclists participating in the Gran Fondo bicycle race through New Mexico sponsored by Choice.

In fact, we had significant capital expenditures in almost all of our continuing operations in the past two years, resulting in the following upgrades to our networks:

- upgrades of over 40 domestic cell sites to more advanced mobile data technologies like UMTS or LTE;
- the addition of more than 100 new domestic and more than 40 new international wireless base stations;
- construction of over 2,000 route miles of fiber optic transport facilities (for a total of approximately 5,300 route miles) in New York and New England over the past three years; and
- significant progress in our construction of a new last-mile broadband infrastructure buildout in the Navajo Nation across Arizona, New Mexico and Utah.

In the year ahead, our budget calls for $65-70 million in capital expenditures, with roughly half allocated to continuing our progress in upgrading our domestic wholesale roaming network. We expect a boost in traffic volume in 2014 due to the expanded coverage and mobile data capabilities that those investments should achieve, albeit at a lesser rate than what we experienced in 2013.

In our international operations, 2013 saw the results of increased investments and our efforts to streamline existing operations reflected in the Company's operating results. In Bermuda, our profitability has benefited from increased scale, and our focus on cost containment since the 2011 merger has yielded improvements in performance. In our smaller overseas wireless markets, while there is still room for improvement, we are satisfied with the rate of our gross and net subscriber additions and our ability to increase our market share. These smaller markets drove a 16.7% annual growth rate in subscribers for the Island Wireless segment.

In Guyana, demand for our data services continues to grow rapidly and we have leveraged improvements on our existing network to enable us to increase our DSL subscriber penetration by almost 30% in the last year. We continue to seek to balance the margins of our declining legacy wireline voice services against opportunities to promote our wireless and DSL services. We also hope to supplement declining international wireline revenues with a revenue boost from the deployment of our expanded fiber network in the U.S. in 2014.

Strategically, we had a great success in 2013 with our exit from our U.S. retail wireless business generating a strong return for our investors. As of December 31, 2013, primarily as a result of the proceeds from the sale of our Alltel business, we had approximately $434.6 million in cash, cash equivalents and restricted cash with no long-term debt. This has given us the resources to take advantage of market opportunities to build upon the substantial value created by the investment we made in that business in 2010.

Along those lines, your management team has spent much of the last six months since the closing of the sale pursuing investment opportunities. That is not something new, as management has continually evaluated opportunities for investment and expansion over the years. What is new recently is the size of our capital capacity. This presents both a challenge and an opportunity. The challenge is that, ideally, we need to make larger investments in order to generate meaningful overall returns for stockholders and to ensure that management is able to devote an adequate amount of attention to each of our operating units. The opportunity is the flip side of that equation—we are able to target larger investments and transactions and to move quickly to execute because of readily available capital.

As a matter of policy, we typically do not comment on any specific potential acquisition or investment. As a general matter, however, our focus has been on opportunities that we believe have potential for long-term organic and strategic growth. We look for opportunities in underserved markets, and we continue to like the idea of building telecommunications infrastructure with long-term potential—particularly in areas that the broader market regards as less attractive in the short term. We are willing to be patient, but we are also willing to move quickly if we see that potential for long-term growth. We will have to take risks, regardless of when we invest and where. To date, we have looked closely at a few investments but, ultimately, were either unable to agree on terms, not fully convinced of the business model or not comfortable with our alignment with

NTUA Wireless employees pose with their first customer on the Navajo Nation.

prospective management teams. Valuations in some areas seem extraordinarily high to us at present, leaving us uncomfortable with the relationship of risks and rewards. In some cases we have found that there is too much capital chasing the same targets. We are willing to pay a relatively full valuation if we think that a transaction will generate significant opportunities to put additional capital to work in the same segment or area at higher returns. That was the strategy we deployed to good success almost nine years ago with the investment in the U.S. wholesale wireless sector.

In sum, we believe that our decision to retire our long-term debt this past year, coupled with our current cash capacity and our access to capital markets, leaves us poised to act quickly if an attractive investment opportunity materializes. We look forward to continuing to shape the character of your Company through new acquisitions, ongoing investments and improving our existing operations.

Michael T. Prior
President and
Chief Executive Officer

Cornelius B. Prior, Jr.
Chairman of the Board

[1] Adjusted EBITDA is defined as net income attributable to ATN stockholders before income from discontinued operations, gain on disposal of discontinued operations, interest, taxes, depreciation and amortization, transaction-related charges, impairment of intangible assets, gain on disposition of long-lived assets, other income or expense, and net income attributable to non-controlling interests. Management believes that the inclusion of this non-GAAP financial measure helps investors to gain a meaningful understanding of the Company's core operating results and enhances comparing such performance with prior periods. ATN's management uses this non-GAAP measure, in addition to GAAP financial measures, as the basis for measuring our core operating performance and comparing such performance to that of prior periods. See ir.atni.com for reconciliations of the non-GAAP financial measure used in this annual report to the most directly comparable GAAP financial measure.

CORPORATE INFORMATION

Headquarters

Atlantic Tele-Network, Inc.
600 Cummings Center
Beverly, MA 01915
Phone: 978.619.1300
Email: ir@atni.com
www.atni.com

Independent Auditors

PricewaterhouseCoopers LLP
125 High Street
Boston, MA 02110

Registrar and Transfer Agent

The transfer agent is responsible, among other things, for handling stockholder questions regarding lost stock certificates, address changes, including duplicate mailings, and changes in ownership or name in which shares are held. These requests may be directed to the transfer agent at the following addresses:

Computershare Shareowner Services
Shareholder correspondence should be mailed to:

Computershare
P.O. BOX 30170
College Station, TX 77842-3170

Overnight correspondence should be sent to:

Computershare
211 Quality Circle, Suite 210
College Station, TX 77845

Shareholder website:

www.computershare.com/investor
Shareholder online inquiries:
https://www-us.computershare.com/investor/Contact
Phone: 866.230.2916

Annual Meeting

The Annual Meeting of Stockholders will be held at 10:00 a.m. on Tuesday, June 17, 2014 at:

The Wylie Inn & Conference Center
295 Hale Street
Beverly, MA 01915

SEC Form 10-K

A copy of ATN's Annual Report on Form 10-K filed with the Securities and Exchange Commission can be obtained free of charge upon request by calling us at 978.619.1300, emailing us at ir@atni.com or by writing to us at:

Atlantic Tele-Network, Inc.
Attention: Investor Relations
600 Cummings Center
Beverly, MA 01915

Stock Listing

The common stock of the Company is traded on the NASDAQ Global Select Market under the symbol ATNI.

Young participants representing GT&T in the Mashramani Children's Costume Parade in Guyana.

Executive Officers

Michael T. Prior
President & Chief Executive Officer

Justin D. Benincasa
Chief Financial Officer & Treasurer

William F. Kreisher
Senior Vice President, Corporate Development

Leonard Q. Slap
Senior Vice President & General Counsel

Karl D. Noone
Senior Vice President & Corporate Controller

Directors

Cornelius B. Prior, Jr.
Chairman

Martin L. Budd
Former Partner
Day Pitney LLP

Michael T. Flynn
President and Owner, DeliPlanet, Inc.
Former Senior Executive, Alltel Communications

Liane J. Pelletier
Former Chief Executive Officer & Chairman
Alaska Communications Systems Group, Inc.

Michael T. Prior
President & Chief Executive Officer

Charles J. Roesslein
Chief Executive Officer
Austin Tele-Services Partners, LP

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