



November 3, 2014

Arista Networks Inc.

Sue did your homework: Expect beat and raise

Our view: Arista is set to beat and raise, and strong customer growth points to further potential as the de-facto standard in datacenter networking. Share gains are from Cisco, Juniper, and others and Arista's U.S. win rate may soon be replicated overseas as datacenter builds expand with Asian web giants. Look for expanding deals with increasingly friendly partner VMware. Post lock-up may provide better entry point.

Key points:

- **Earnings on Thursday, 11/6.** Web 2.0 and enterprise customer demand for cloud services are driving datacenter spend. Arista customer Microsoft reported +128% YoY growth in F1Q15 commercial cloud revenues, the fifth consecutive quarter of triple-digit YoY growth with investments in datacenter capacity and locations. Juniper's recent switching results (-22% QoQ, +5% YoY) point to what we think is share-loss to Arista. RBC/consensus revenues: \$146M/\$148M (+45% YoY); our non-GAAP EPS is \$0.26 vs. Street's \$0.28 on slight spending variance. For 4Q14, we expect book-to-bill >1.0 and Arista's outlook to surpass RBC's \$152M/\$0.21, moving toward or above the \$161M/\$0.29 consensus (implies +40% YoY). Dial-in for 4:30PM ET call: 877-201-0168; ID 2361-0535.
- **Key metrics.** Investors seek evidence that Arista continues taking share, as investment in Arista is primarily about the top line. Increased customers, design wins, and evidence that partnerships with VMware for SDN, F5 for application delivery, and Palo Alto Networks for security are all important indicators. Expect little change to GMs in mid-60% range (67.9% last Q).
- **Look yonder.** The focus has been on NA datacenter build-outs, but investors may start focusing on potential build-outs in regions like Asia, more specifically China, as Arista's differentiation may be placing it above other switch vendors. International expansion is heavily dependent on channel partner/distribution relationships, so commentary surrounding channel expansion builds confidence. International revenues comprised 25% of total in 2Q, with EMEA +125% YoY and APAC at +230% YoY.
- **Why are investors long?** Arista's growing almost twice as quickly as Juniper while Cisco actually showed negative YoY switching growth the past three quarters. Investors believe that given the competitive dynamics, Arista's price/performance is providing differentiation in the high-growth data-center market. With only 25% of revenues abroad, investors see a large addressable greenfield opportunity.
- **Why are some investors short?** Even in a best-case scenario, CY16E EPS may be \$3.00 (vs. consensus of \$1.83), implying shares are already fairly valued, then some. Arista's ability to displace a Cisco means someone else can come from behind and subsequently displace Arista (particularly in a fluid SDN environment). If GMs decline below 60%, it would imply that Cisco can win back share. Lastly, consider upcoming December 3rd lock-up expiration.

RBC Capital Markets, LLC
Mark Sue (Analyst)
 (212) 428-6491
 mark.sue@rbccm.com

Ameet Prabhu (Associate)
 (212) 618-3330
 ammeet.prabhu@rbccm.com

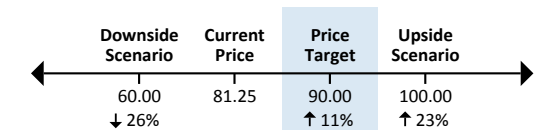
Outperform

NYSE: ANET; USD 81.25

Price Target USD 90.00

WHAT'S INSIDE	
<input type="checkbox"/> Rating/Risk Change	<input type="checkbox"/> Price Target Change
<input type="checkbox"/> In-Depth Report	<input type="checkbox"/> Est. Change
<input checked="" type="checkbox"/> Preview	<input type="checkbox"/> News Analysis

Scenario Analysis*



*Implied Total Returns

Key Statistics

Shares O/S (MM):	67.5	Market Cap (MM):	5,484
Dividend:	0.00	Yield:	0.0%
		Avg. Daily Volume:	502,917

RBC Estimates

FY Dec	2013A	2014E	2015E	2016E
Revenue	361.2	553.1	744.0	965.0
EPS, Ops Diluted	0.97	1.10	1.05	1.75
EBITDA, Adj	81.4	127.5	136.6	226.8
P/E	NM	73.9x	77.4x	46.4x
Revenue	Q1	Q2	Q3	Q4
2013	61.3A	83.5A	101.6A	114.8A
2014	117.2A	137.9A	146.0E	152.0E
2015	152.0E	180.0E	198.0E	214.0E
EPS, Ops Diluted				
2013	0.16A	0.23A	0.27A	0.31A
2014	0.28A	0.35A	0.26E	0.21E
2015	0.17E	0.22E	0.29E	0.36E

Revenues in \$, M

All values in USD unless otherwise noted.

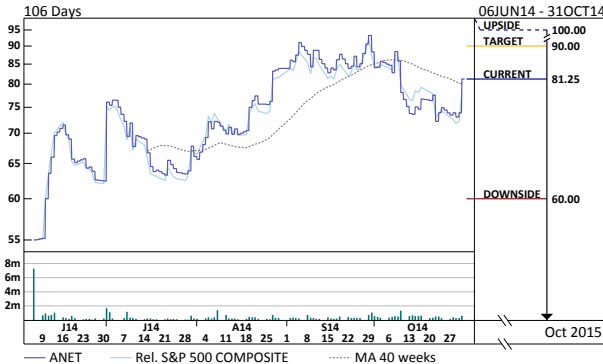
Priced as of prior trading day's market close, EST (unless otherwise noted).

For Required Conflicts Disclosures, see Page 5.



Target/Upside/Downside Scenarios

Exhibit 1: Arista Networks Inc.



Source: Bloomberg and RBC Capital Markets estimates for Upside/Downside/Target

Target price/ base case

For our base case, we primarily consider new product launches and demand for cloud infrastructure, accelerating top-line growth trends, with market share gains in Ethernet switching and further penetration at existing customers.

Our base case scenario target is \$90 or 8.5x EV/sales CY15E revenue of \$744M, growing +35% YoY with OMs of 16.2% and EPS of \$1.05. In CY16, we estimate revenues to grow +30% YoY to \$965M with OMs of 21.7% and EPS of \$1.75, implying EV/sales of 6.8x.

Upside scenario

Our upside scenario assumes higher than expected demand, market share gains, and faster customer growth and increased capex spending from web 2.0 and cloud service providers. New products and software could enhance margins as customers recognize capex and opex savings.

Our upside scenario is \$100 or EV/sales of 8.7x, we expect CY15 revenues growing +37% YoY to \$814M, OMs of 18.5% and EPS of \$1.43. In CY16, we estimate revenues grow +29% YoY to \$1.07B, OMs of 24.7%, and EPS of \$2.57, implying EV/sales of 6.9x.

Downside scenario

Our downside scenario assumes a weaker-than-expected data-center build-out environment, weaker enterprise IT spending, and slower uptake of new products and transition toward cloud-based infrastructure, driving meaningful, albeit weaker-than expected revenue growth and margin trends.

For our downside scenario of \$60, we expect CY15 revenues to grow +30% YoY to \$702M with OMs of 14.3% and EPS of \$0.84, implying an EV/sales ratio of 5.7x. In CY16, we estimate revenues to grow +26% YoY to \$883M with operating margins of 19.6% and EPS of \$1.40, implying an EV/sales of 4.7x.

Investment summary

We rate Arista Networks Outperform rating with a price target of \$90. We believe Arista Networks is one of the most important new data networking companies in recent years. Its rate and breadth of new customer wins give us added confidence that the top-line growth rate may be sustainable beyond just the near term. The strong top-line growth, leading differentiated technology, and Ethernet switching market share gains warrant a premium valuation, in our view.

The top-line growth is driven by secular trends in data-center build-outs by web 2.0, cloud service provider, and enterprise customers. Driving these growth trends is the transition of traditional IT infrastructure to cloud-based environments. We expect the cloud data-center segment to grow from \$6–7B currently to about \$9–10B by 2018.

Our \$90 price target is based on an EV/sales multiple of 8.5x our CY15E revenue of \$744M (+35% YoY) and 6.8x our CY16E revenue estimate of \$965M (+30% YoY), which is supported by our DCF analysis, utilizing a long-term growth rate of 3.5% and a discount rate of 8.0%. Investors are assigning a high valuation multiple to the stock, as indicated by the run-up in the stock price since it went public. We believe the valuation metrics are justified given Arista’s strong multi-year top-line growth trends, secular trends in cloud data-center infrastructure, technology differentiation, rapid customer growth, margins and profitability metrics, coupled with the market share gains opportunity and Arista’s experienced management team.

Risks and price target impediments

There are many moving parts in Arista's growth story: a large and growing end market, growth in cloud infrastructure build-out, a differentiated technology platform, diverse customer base, profitability and cash flow generation, and a seasoned management team. The following factors may impede achievement of our price target:

- Competition and rapid technology changes
- Litigation involving co-founder, former board member
- Margin pressure and impact of product bundling
- High customer and channel concentration
- Limited uptake of cloud-based solutions
- Weakness in enterprise IT spending



Valuation

We believe early-stage growth companies in tech warrant multiple approaches to valuation accounting for factors such as the TAM opportunity, competitive dynamics, opportunities for market share growth, long-term strategy, top-line growth rates, margin profiles, and capital investment considerations. As such, we use a blended approach to establish a valuation range that may include multiples of sales, earnings and EBITDA.

Arista currently trades at 8.1x our CY15 revenue estimate and 6.5x our CY16 revenue estimate. The valuation multiple is consistent with some of the high-growth names such as F5 Networks (4.4x CY15E), Palo Alto Networks (7.9x CY15 consensus estimates), and Fortinet (4.6x CY15 consensus estimates). Our 12-month price target of \$90 implies 8.5x our CY15 revenue estimate, 46x our CY15 EBITDA estimate, and a P/E of 86x. Our implied valuation multiples are a premium to the selected comparable peer companies but not outside the bounds of companies with large addressable markets and disruptive products.

Price target impediments

There are many moving parts in Arista's growth story: a large and growing end market, growth in cloud infrastructure build-out, a differentiated technology platform, diverse customer base, profitability and cash flow generation, and a seasoned management team. The following factors may impede achievement of our price target:

- **Competition and rapid technology changes.** Competition in Ethernet switching can be intense. Cisco is the large incumbent player in the market, while there are other small and large players, coupled with some white-box players.
- **Litigation.** Co-founder and prior board member David Cheriton's company OptumSoft has filed a lawsuit against Arista, claiming ownership of certain components of its EOS network operating system, which may impact EOS-related IP and include potential damages.
- **Changing end-market demands.** Dynamic customer requirements, competitive solutions and emergence of SDN mean the Ethernet switching market is evolving rapidly.
- **High customer concentration.** Arista has a high customer concentration and generates a significant portion of revenues from a few large customers, especially web 2.0 companies.
- **Weakness in enterprise IT spending, limited uptake of cloud-based solutions.** Slowdown in enterprise IT spending or limited traction for cloud-based solutions may weigh on demand trends for Arista's platform.

Company description

Founded in 2004 and headquartered in Santa Clara, CA, Arista Networks is a provider of data-center Ethernet switching solutions. Arista provides 10G/40G Ethernet switches to large data centers. Arista has a strong position in low latency, web 2.0 and cloud networks. The company has a customer base of >2,500 customers and >750 employees. The Linux-based Extensible Operating System (EOS) is the foundation of its switching platform and product portfolio.



Period Ending (\$, 000s except EPS and ratios)	Mar-13 1Q	Jun-13 2Q	Sep-13 3Q	Dec-13 4Q	Mar-14 1Q	Jun-14 2Q	Sep-14 3QE	Dec-14 4QE	Mar-15 1QE	Jun-15 2QE	Sep-15 3QE	Dec-15 4QE	Dec-13 CY	Dec-14 CYE	Dec-15 CYE	Dec-16 CYE
Non-GAAP Income statement																
Total revenues	61,348	83,485	101,625	114,767	117,207	137,947	146,000	152,000	152,000	180,000	198,000	214,000	361,225	553,154	744,000	965,000
Product revenues	56,440	76,806	93,495	105,585	107,830	126,911	135,000	140,500	138,000	163,000	178,000	191,000	332,327	510,242	670,000	853,000
Services and other revenues	4,908	6,679	8,130	9,181	9,377	11,036	11,000	11,500	14,000	17,000	20,000	23,000	28,898	42,912	74,000	112,000
YoY growth	NA	NA	NA	NA	91%	65%	44%	32%	30%	30%	36%	41%	87%	53%	35%	30%
QoQ growth	NA	36%	22%	13%	2%	18%	6%	4%	0%	18%	10%	8%	NA	NA	NA	NA
Cost of sales	19,153	29,501	36,482	37,142	35,682	44,266	51,100	53,702	54,002	63,968	70,726	76,467	122,278	184,750	265,163	355,439
Product cost of sales	17,621	27,141	33,564	34,171	32,827	40,725	47,250	49,597	48,990	57,865	63,546	68,187	112,496	170,399	238,588	313,831
Services cost of sales	1,532	2,360	2,919	2,971	2,855	3,541	3,850	4,106	5,012	6,103	7,180	8,280	9,782	14,351	26,575	41,608
Gross profit	42,195	53,984	65,143	77,624	81,525	93,681	94,900	98,298	97,998	116,032	127,274	137,533	238,946	368,404	478,837	609,561
Sales & marketing	9,653	12,432	13,759	16,286	17,227	18,780	22,630	23,560	24,776	28,440	30,294	31,030	52,130	82,197	114,540	143,129
R&D	18,518	19,972	25,296	29,337	30,979	31,361	36,500	40,280	41,800	48,600	49,500	50,290	93,123	139,120	190,190	200,855
G&A	3,539	3,242	4,869	5,736	6,555	6,180	7,592	10,640	11,856	13,320	14,058	14,552	17,386	30,967	53,786	56,626
Other operating expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total operating expenses	31,710	35,646	43,924	51,359	54,761	56,321	66,722	74,480	78,432	90,360	93,852	95,872	162,639	252,284	358,516	400,610
Operating income	10,485	18,338	21,219	26,265	26,764	37,360	28,178	23,818	19,566	25,672	33,422	41,661	76,307	116,120	120,321	208,951
Interest & other expense	(1,850)	(1,773)	(1,820)	(2,430)	(2,535)	(5,435)	(750)	(750)	(750)	(750)	(750)	(750)	(7,873)	(9,470)	(3,000)	(2,000)
Other income	0	0	0	0	0	2,472	0	0	0	0	0	0	0	2,472	0	0
Income before inc. taxes	8,635	16,565	19,399	23,835	24,229	34,397	27,428	23,068	18,816	24,922	32,672	40,911	68,434	109,122	117,321	206,951
Provision for income taxes	282	4,240	4,961	6,332	7,824	10,674	8,777	7,382	6,021	7,975	10,455	13,092	15,815	34,657	37,543	66,224
Net Earnings	8,353	12,325	14,438	17,503	16,405	23,723	18,651	15,686	12,795	16,947	22,217	27,819	52,619	74,465	79,778	140,727
Earnings per share	\$0.16	\$0.23	\$0.27	\$0.31	\$0.28	\$0.35	\$0.26	\$0.21	\$0.17	\$0.22	\$0.29	\$0.36	\$0.97	\$1.10	\$1.05	\$1.75
EPS YoY Growth													83%	13%	-5%	67%
Shares Outstanding, diluted	52,044	53,252	54,412	56,470	57,816	67,470	71,289	73,436	74,541	75,642	76,723	77,820	54,051	67,503	76,182	80,612
Percent of Sales:																
Gross Margins	68.8%	64.7%	64.1%	67.6%	69.6%	67.9%	65.0%	64.7%	64.5%	64.5%	64.3%	64.3%	66.1%	66.6%	64.4%	63.2%
Product gross margins	68.8%	64.7%	64.1%	67.6%	69.6%	67.9%	65.0%	64.7%	64.5%	64.5%	64.3%	64.3%	66.1%	66.6%	64.4%	63.2%
Services gross margins	68.8%	64.7%	64.1%	67.6%	69.6%	67.9%	65.0%	64.3%	64.2%	64.1%	64.1%	64.0%	66.1%	66.6%	64.1%	62.9%
Operating income	17.1%	22.0%	20.9%	22.9%	22.8%	27.1%	19.3%	15.7%	12.9%	14.3%	16.9%	19.5%	21.1%	21.0%	16.2%	21.7%
Pre-Tax income	14.1%	19.8%	19.1%	20.8%	20.7%	24.9%	18.8%	15.2%	12.4%	13.8%	16.5%	19.1%	18.9%	19.7%	15.8%	21.4%
Net income	13.6%	14.8%	14.2%	15.3%	14.0%	17.2%	12.8%	10.3%	8.4%	9.4%	11.2%	13.0%	14.6%	13.5%	10.7%	14.6%
Sales & marketing	15.7%	14.9%	13.5%	14.2%	14.7%	13.6%	15.5%	15.5%	16.3%	15.8%	15.3%	14.5%	14.4%	14.9%	15.4%	14.8%
R&D	30.2%	23.9%	24.9%	25.6%	26.4%	22.7%	25.0%	26.5%	27.5%	27.0%	25.0%	23.5%	25.8%	25.2%	25.6%	20.8%
G&A	5.8%	3.9%	4.8%	5.0%	5.6%	4.5%	5.2%	7.0%	7.8%	7.4%	7.1%	6.8%	4.8%	5.6%	7.2%	5.9%
Tax rate, net	3.3%	25.6%	25.6%	26.6%	32.3%	31.0%	32.0%	32.0%	32.0%	32.0%	32.0%	32.0%	23.1%	31.8%	32.0%	32.0%

Source: Company data, RBC Capital Markets estimates



Required disclosures

Conflicts disclosures

The analyst(s) responsible for preparing this research report received compensation that is based upon various factors, including total revenues of the member companies of RBC Capital Markets and its affiliates, a portion of which are or have been generated by investment banking activities of the member companies of RBC Capital Markets and its affiliates.

Please note that current conflicts disclosures may differ from those as of the publication date on, and as set forth in, this report. To access current conflicts disclosures, clients should refer to <https://www.rbccm.com/GLDisclosure/PublicWeb/DisclosureLookup.aspx?entityId=1> or send a request to RBC CM Research Publishing, P.O. Box 50, 200 Bay Street, Royal Bank Plaza, 29th Floor, South Tower, Toronto, Ontario M5J 2W7.

A member company of RBC Capital Markets or one of its affiliates managed or co-managed a public offering of securities for Arista Networks Inc. in the past 12 months.

A member company of RBC Capital Markets or one of its affiliates received compensation for investment banking services from Arista Networks Inc. in the past 12 months.

RBC Capital Markets, LLC makes a market in the securities of Arista Networks Inc..

RBC Capital Markets has provided Arista Networks Inc. with investment banking services in the past 12 months.

Explanation of RBC Capital Markets Equity rating system

An analyst's 'sector' is the universe of companies for which the analyst provides research coverage. Accordingly, the rating assigned to a particular stock represents solely the analyst's view of how that stock will perform over the next 12 months relative to the analyst's sector average. Although RBC Capital Markets' ratings of Top Pick (TP)/Outperform (O), Sector Perform (SP), and Underperform (U) most closely correspond to Buy, Hold/Neutral and Sell, respectively, the meanings are not the same because our ratings are determined on a relative basis.

Ratings

Top Pick (TP): Represents analyst's best idea in the sector; expected to provide significant absolute total return over 12 months with a favorable risk-reward ratio.

Outperform (O): Expected to materially outperform sector average over 12 months.

Sector Perform (SP): Returns expected to be in line with sector average over 12 months.

Underperform (U): Returns expected to be materially below sector average over 12 months.

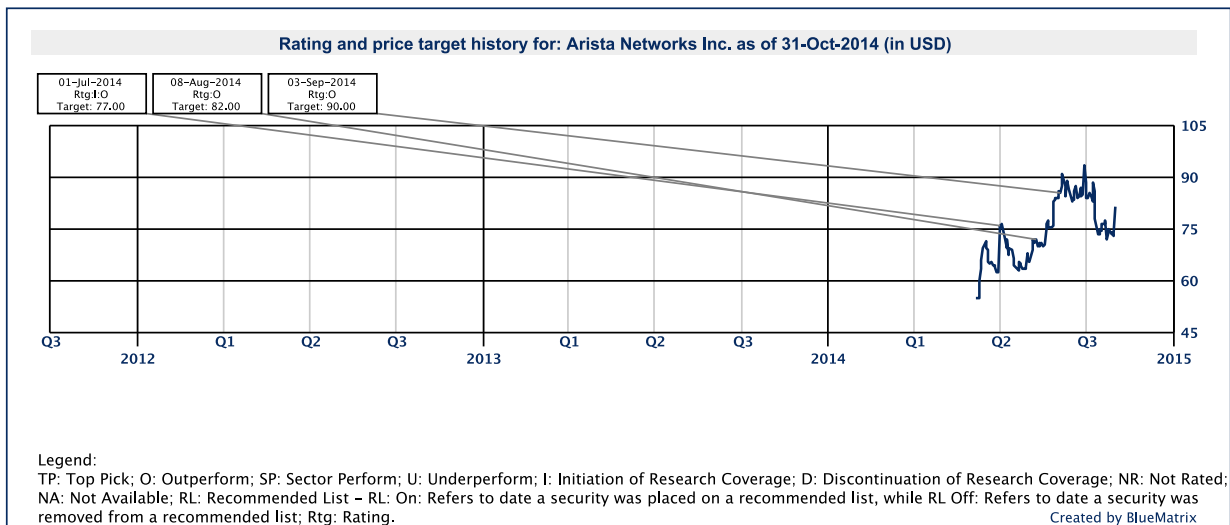
Risk Rating

As of March 31, 2013, RBC Capital Markets suspends its Average and Above Average risk ratings. The **Speculative** risk rating reflects a security's lower level of financial or operating predictability, illiquid share trading volumes, high balance sheet leverage, or limited operating history that result in a higher expectation of financial and/or stock price volatility.

Distribution of ratings

For the purpose of ratings distributions, regulatory rules require member firms to assign ratings to one of three rating categories - Buy, Hold/Neutral, or Sell - regardless of a firm's own rating categories. Although RBC Capital Markets' ratings of Top Pick(TP)/ Outperform (O), Sector Perform (SP), and Underperform (U) most closely correspond to Buy, Hold/Neutral and Sell, respectively, the meanings are not the same because our ratings are determined on a relative basis (as described below).

Distribution of ratings RBC Capital Markets, Equity Research As of 30-Sep-2014				
Rating	Count	Percent	Investment Banking Serv./Past 12 Mos.	
			Count	Percent
BUY [Top Pick & Outperform]	858	52.35	308	35.90
HOLD [Sector Perform]	683	41.67	151	22.11
SELL [Underperform]	98	5.98	8	8.16



References to a Recommended List in the recommendation history chart may include one or more recommended lists or model portfolios maintained by RBC Wealth Management or one of its affiliates. RBC Wealth Management recommended lists include a former list called the Prime Opportunity List (RL 3), the Guided Portfolio: Prime Income (RL 6), the Guided Portfolio: Large Cap (RL 7), the Guided Portfolio: Dividend Growth (RL 8), the Guided Portfolio: Midcap 111 (RL 9), the Guided Portfolio: ADR (RL 10), and the Guided Portfolio: Global Equity (U.S.) (RL 11). RBC Capital Markets recommended lists include the Strategy Focus List and the Fundamental Equity Weightings (FEW) portfolios. The abbreviation 'RL On' means the date a security was placed on a Recommended List. The abbreviation 'RL Off' means the date a security was removed from a Recommended List.

Equity valuation and risks

For valuation methods used to determine, and risks that may impede achievement of, price targets for covered companies, please see the most recent company-specific research report at <https://www.rbcinsight.com> or send a request to RBC Capital Markets Research Publishing, P.O. Box 50, 200 Bay Street, Royal Bank Plaza, 29th Floor, South Tower, Toronto, Ontario M5J 2W7.

Conflicts policy

RBC Capital Markets Policy for Managing Conflicts of Interest in Relation to Investment Research is available from us on request. To access our current policy, clients should refer to

<https://www.rbccm.com/global/file-414164.pdf>

or send a request to RBC Capital Markets Research Publishing, P.O. Box 50, 200 Bay Street, Royal Bank Plaza, 29th Floor, South Tower, Toronto, Ontario M5J 2W7. We reserve the right to amend or supplement this policy at any time.

Dissemination of research and short-term trade ideas

RBC Capital Markets endeavours to make all reasonable efforts to provide research simultaneously to all eligible clients, having regard to local time zones in overseas jurisdictions. Subject to any applicable regulatory considerations, "eligible clients" may include RBC Capital Markets institutional clients globally, the retail divisions of RBC Dominion Securities Inc. and RBC Capital Markets LLC, and affiliates. RBC Capital Markets' equity research is posted to our proprietary websites to ensure eligible clients receive coverage initiations and changes in rating, targets and opinions in a timely manner. Additional distribution may be done by the sales personnel via email, fax or regular mail. Clients may also receive our research via third party vendors. Please contact your investment advisor or institutional salesperson for more information regarding RBC Capital Markets research. RBC Capital Markets also provides eligible clients with access to SPARC on its proprietary INSIGHT website. SPARC contains market color and commentary, and may also contain Short-Term Trade Ideas regarding the securities of subject companies discussed in this or other research reports. SPARC may be accessed via the following hyperlink: <https://www.rbcinsight.com>. A Short-Term Trade Idea reflects the research analyst's directional view regarding the price of the security of a subject company in the coming days or weeks, based on market and trading events. A Short-Term Trade Idea may differ from the price targets and/or recommendations in our



published research reports reflecting the research analyst's views of the longer-term (one year) prospects of the subject company, as a result of the differing time horizons, methodologies and/or other factors. Thus, it is possible that the security of a subject company that is considered a long-term 'Sector Perform' or even an 'Underperform' might be a short-term buying opportunity as a result of temporary selling pressure in the market; conversely, the security of a subject company that is rated a long-term 'Outperform' could be considered susceptible to a short-term downward price correction. Short-Term Trade Ideas are not ratings, nor are they part of any ratings system, and RBC Capital Markets generally does not intend, nor undertakes any obligation, to maintain or update Short-Term Trade Ideas. Short-Term Trade Ideas discussed in SPARC may not be suitable for all investors and have not been tailored to individual investor circumstances and objectives, and investors should make their own independent decisions regarding any Short-Term Trade Ideas discussed therein.

Analyst certification

All of the views expressed in this report accurately reflect the personal views of the responsible analyst(s) about any and all of the subject securities or issuers. No part of the compensation of the responsible analyst(s) named herein is, or will be, directly or indirectly, related to the specific recommendations or views expressed by the responsible analyst(s) in this report.

The Global Industry Classification Standard ("GICS") was developed by and is the exclusive property and a service mark of MSCI Inc. ("MSCI") and Standard & Poor's Financial Services LLC ("S&P") and is licensed for use by RBC. Neither MSCI, S&P, nor any other party involved in making or compiling the GICS or any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability and fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P, any of their affiliates or any third party involved in making or compiling the GICS or any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

Disclaimer

RBC Capital Markets is the business name used by certain branches and subsidiaries of the Royal Bank of Canada, including RBC Dominion Securities Inc., RBC Capital Markets, LLC, RBC Europe Limited, RBC Capital Markets (Hong Kong) Limited, Royal Bank of Canada, Hong Kong Branch and Royal Bank of Canada, Sydney Branch. The information contained in this report has been compiled by RBC Capital Markets from sources believed to be reliable, but no representation or warranty, express or implied, is made by Royal Bank of Canada, RBC Capital Markets, its affiliates or any other person as to its accuracy, completeness or correctness. All opinions and estimates contained in this report constitute RBC Capital Markets' judgement as of the date of this report, are subject to change without notice and are provided in good faith but without legal responsibility. Nothing in this report constitutes legal, accounting or tax advice or individually tailored investment advice. This material is prepared for general circulation to clients and has been prepared without regard to the individual financial circumstances and objectives of persons who receive it. The investments or services contained in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about the suitability of such investments or services. This report is not an offer to sell or a solicitation of an offer to buy any securities. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. RBC Capital Markets research analyst compensation is based in part on the overall profitability of RBC Capital Markets, which includes profits attributable to investment banking revenues. Every province in Canada, state in the U.S., and most countries throughout the world have their own laws regulating the types of securities and other investment products which may be offered to their residents, as well as the process for doing so. As a result, the securities discussed in this report may not be eligible for sale in some jurisdictions. RBC Capital Markets may be restricted from publishing research reports, from time to time, due to regulatory restrictions and/or internal compliance policies. If this is the case, the latest published research reports available to clients may not reflect recent material changes in the applicable industry and/or applicable subject companies. RBC Capital Markets research reports are current only as of the date set forth on the research reports. This report is not, and under no circumstances should be construed as, a solicitation to act as securities broker or dealer in any jurisdiction by any person or company that is not legally permitted to carry on the business of a securities broker or dealer in that jurisdiction. To the full extent permitted by law neither RBC Capital Markets nor any of its affiliates, nor any other person, accepts any liability whatsoever for any direct or consequential loss arising from any use of this report or the information contained herein. No matter contained in this document may be reproduced or copied by any means without the prior consent of RBC Capital Markets.

Additional information is available on request.

To U.S. Residents:

This publication has been approved by RBC Capital Markets, LLC (member FINRA, NYSE, SIPC), which is a U.S. registered broker-dealer and which accepts responsibility for this report and its dissemination in the United States. Any U.S. recipient of this report that is not a registered broker-dealer or a bank acting in a broker or dealer capacity and that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report, should contact and place orders with RBC Capital Markets, LLC.

To Canadian Residents:

This publication has been approved by RBC Dominion Securities Inc. (member IIROC). Any Canadian recipient of this report that is not a Designated Institution in Ontario, an Accredited Investor in British Columbia or Alberta or a Sophisticated Purchaser in Quebec (or similar permitted purchaser in any other province) and that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report should contact and place orders with RBC Dominion Securities Inc., which, without in any way limiting the foregoing, accepts responsibility for this report and its dissemination in Canada.

To U.K. Residents:

This publication has been approved by RBC Europe Limited ('RBCEL') which is authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority ('FCA') and the Prudential Regulation Authority, in connection with its distribution in the United Kingdom. This material is not for general distribution in the United Kingdom to retail clients, as defined under the rules of the FCA. However, targeted distribution may be made to selected retail clients of RBC and its affiliates. RBCEL accepts responsibility for this report and its dissemination in the United Kingdom.

To Persons Receiving This Advice in Australia:

This material has been distributed in Australia by Royal Bank of Canada - Sydney Branch (ABN 86 076 940 880, AFSL No. 246521). This material has been prepared for general circulation and does not take into account the objectives, financial situation or needs of any recipient. Accordingly, any recipient should, before acting on



this material, consider the appropriateness of this material having regard to their objectives, financial situation and needs. If this material relates to the acquisition or possible acquisition of a particular financial product, a recipient in Australia should obtain any relevant disclosure document prepared in respect of that product and consider that document before making any decision about whether to acquire the product. This research report is not for retail investors as defined in section 761G of the Corporations Act.

To Hong Kong Residents:

RBC Capital Markets (Hong Kong) Limited and Royal Bank of Canada, Hong Kong Branch (both entities regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission ('SFC')). Financial Services provided to Australia: Financial services may be provided in Australia in accordance with applicable law. Financial services provided by the Royal Bank of Canada, Hong Kong Branch are provided pursuant to the Royal Bank of Canada's Australian Financial Services Licence ('AFSL') (No. 246521). RBC Capital Markets (Hong Kong) Limited is exempt from the requirement to hold an AFSL under the Corporations Act 2001 in respect of the provision of such financial services. RBC Capital Markets (Hong Kong) Limited is regulated by the Hong Kong Monetary Authority and the SFC under the laws of Hong Kong, which differ from Australian laws.

To Singapore Residents:

This publication is distributed in Singapore by the Royal Bank of Canada, Singapore Branch, an offshore bank regulated by the Monetary Authority of Singapore. This material has been prepared for general circulation and does not take into account the objectives, financial situation, or needs of any recipient. You are advised to seek independent advice from a financial adviser before purchasing any product. If you do not obtain independent advice, you should consider whether the product is suitable for you. Past performance is not indicative of future performance. If you have any questions related to this publication, please contact the Royal Bank of Canada, Singapore Branch.

To Japanese Residents:

Unless otherwise exempted by Japanese law, this publication is distributed in Japan by or through RBC Capital Markets (Japan) Ltd., a registered type one financial instruments firm and/or Royal Bank of Canada, Tokyo Branch, a licensed foreign bank.

® Registered trademark of Royal Bank of Canada. RBC Capital Markets is a trademark of Royal Bank of Canada. Used under license.

Copyright © RBC Capital Markets, LLC 2014 - Member SIPC

Copyright © RBC Dominion Securities Inc. 2014 - Member CIPF

Copyright © RBC Europe Limited 2014

Copyright © Royal Bank of Canada 2014

All rights reserved