

# 07-Nov-2017 pdvWireless, Inc. (PDVW)

Q2 2018 Earnings Call

# **CORPORATE PARTICIPANTS**

Natasha Vecchiarelli Investor Relations Manager, pdvWireless, Inc.

John C. Pescatore President, Chief Executive Officer & Director, pdvWireless, Inc.

Morgan Edward O'Brien Vice Chairman, pdvWireless, Inc. Timothy Gray Chief Financial Officer, pdvWireless, Inc.

Robert Schwartz Chief Strategy & Development Officer, pdvWireless, Inc.

## **OTHER PARTICIPANTS**

Sameed Musvee Associate Analyst, B. Riley FBR, Inc.

# MANAGEMENT DISCUSSION SECTION

**Operator**: Good afternoon, ladies and gentlemen, and welcome to the pdvWireless Second Quarter Fiscal Year 2018 Earnings Conference Call. At this time, all participants have been placed on a listen-only mode, and we will open the floor for your questions and comments after the presentation.

It is now my pleasure to turn the floor over to your host, Natasha Vecchiarelli. Ma'am, the floor is yours.

## Natasha Vecchiarelli

Investor Relations Manager, pdvWireless, Inc.

Thank you. Good afternoon and thank you all for joining us. With me today are Brian McAuley, our Chairman; Morgan O'Brien, our Vice Chairman; John Pescatore, our President and CEO; Tim Gray, our CFO; and Rob Schwartz, our Chief Strategy and Development Officer.

Before we begin, I'd like to highlight that on our call, we will refer to certain non-GAAP financial measures. We've provided reconciliation to the most directly comparable GAAP financial measures in this afternoon's earnings release, which is available on our Investor Relations page.

As a reminder, the following discussion may contain forward-looking statements and our actual results may different materially from our current expectations or those implied. Information regarding factors that could cause such differences can be found in our SEC filings.

With that, I'd like to turn the call over to our President and CEO, John Pescatore.

## John C. Pescatore

President, Chief Executive Officer & Director, pdvWireless, Inc.

## pdvWireless, Inc. (PDVW) Q2 2018 Earnings Call

Thanks, Natasha. Hello, everyone, and thank you for joining us this afternoon. Today, we'll be discussing our results for the quarter ended September 30, along with sharing highlights on the progress we've made across our strategic priorities. As a reminder, our priorities continue to be, to achieve success with our regulatory initiative aimed at modernizing the 900 megahertz spectrum band; to identify compelling customer use cases for our spectrum, both in its current narrowband configuration and in a broadband configuration, assuming a favorable outcome at the FCC; and finally, increasing sales.

I'll spend a few minutes reviewing these areas, and then Morgan O'Brien will follow with a more detailed review of our regulatory and business development progress. During our second quarter, we saw an increase in dispatch revenue, and as of today, we have approximately 5,800 units in service. While not satisfied with our overall unit volume, we continue to see success across a number of target verticals and are actively focused on initiatives designed to improve our results.

We've begun to see success with large enterprises and have expanded our strategic accounts program to further focus on these opportunities, which include large commercial fleets such as school transportation companies. Beyond these opportunities, we also continue our outreach to the utility vertical.

These types of sales opportunities provide us with the ability to deliver high-quality private narrowband solutions today, while uniquely positioning us to expand our offerings in the future to include reliable private enterprise broadband solutions, solutions that these entities increasingly acknowledge that they need, but cannot get solely from consumer-focused networks.

These activities are building long-term relationships in a very important segment for us. Keep in mind that the sales cycle is long for these utilities and large enterprise deals. They have the potential to make a greater impact though on sales over the long-term and have the added benefit of increasing support for our regulatory agenda.

During the first six months of the year, we continued to make adjustments to our sales and marketing strategies, including realigning our sales organization by distribution channel. As we've previously shared, we are experimenting with various sales and marketing levers to optimize revenues, but we remain mindful of the importance of maintaining a strong cash position, while we work through the FCC process. We have and will continue to watch our cash burn and are prepared to make appropriate trade-offs to help assure long-term success.

Since our last call, we witnessed a terrible hurricane season, one that created widespread damage throughout the United States and Puerto Rico. Our thoughts and prayers are with those that have been impacted, as they begin the rebuilding process. I'm pleased to say that there was minimal impact to our network availability and our employees.

I'm also proud that we were able to contribute to the recovery efforts by coordinating the supply of two-way radios to volunteer groups on the ground and by also providing access to our pdvConnect solution as a communications tool for clean-up crews. Further, I'm sure that many of you may have heard that Google, through its Project Loon team, is helping to provide much needed communications to the people of Puerto Rico. Project Loon is a network of balloons that typically augments cellular service on the ground, providing the ability to get to service areas otherwise difficult to cover.

We, along with others in the 900 megahertz band, consented to allow Google temporary access to our spectrum for this effort, and Google has said that they have already provided service to tens of thousands of people on the ground. The FCC quickly granted them special temporary authority to operate LTE service on our channels for up

to six months. We are very pleased that we can participate in such a good cause. It is also a great example of the innovation and speed of deployment that is enabled by modernizing spectrum for broadband.

Turning to our regulatory efforts, since we last spoke, much progress has been made. We filed comments and reply comments to the FCC's Notice of Inquiry. As a reminder, the NOI seeks to examine whether rule changes are appropriate to assure our spectrum is put to its highest and best use. On October 2, we filed substantive detailed comments with many supporting documents, several of which were crafted by third-part technical experts providing their opinion of our proposal and addressing in detail the opposition's concerns.

We engage consultants with a steep knowledge of previous rebandings and with significant land mobile radio experience, including those that have acted on behalf of relevant end users such as public safety. We task these experts with representing the incumbent's point of view, so that we could assure that their concerns were properly addressed. Their work confirmed our belief that coexistence between narrowband and broadband networks can reasonably be achieved, while fully protecting all incumbents in the band.

We filed our comments on November 1 and are currently analyzing those filed by others. In addition to ours, there are a number of other supportive filings on the record by members of the critical infrastructure sector, including utilities and oil and gas companies. We were also able to garner support from LTE technology leaders, cyber security experts, academics and large enterprises. Finally, we saw current customers of our dispatch solutions, vendors and dealer partners file supportive comments.

We should note that the opposition also made their filings, and there were no substantive new issues raised. We encourage you to read through the records, which can be accessed via the FCC Filings link on our Investor Relations page. As I'm sure you can appreciate, we made a significant investment of time and effort in the filing of comments and reply comments.

The record now reflects far more support, recognizing the need for private enterprise broadband solutions below 1 gig. I believe this growing support is due to the effort of our commercial business development team, along with the continued recognition by enterprises and utilities of the need for such solutions. With the comment and reply comment phase now concluded, the record is ripe for the FCC to consider our comments.

While we cannot speculate on how long it will take the Commission to do this, we are encouraged that modernizing the band is aligned with many of the Commission's important goals, including promoting innovation, bringing new spectrums to market, fostering investment, encouraging rural broadband deployment and increasing the FCC's speed in turning around matters on its docket.

As Chairman Pai shared at the Kansas Broadband Conference in late September "bureaucratic red tape at all levels of government can slow the pace and increase the cost of network deployment," and we couldn't agree more. Although our recent accomplishments on the regulatory front are noteworthy, we are mindful that there is still a long road ahead. We remain focused on a final order from the FCC and are optimistic on seeing a future where private enterprise broadband solutions can be built on the spectrum we hold today.

Now, I'd like to turn it over to Morgan O'Brien to provide a more detailed update on our regulatory and business development initiatives.

Morgan Edward O'Brien

Vice Chairman, pdvWireless, Inc.

Thanks, John. I'm pleased to report on the substantial progress that pdv has made on the regulatory front since our last quarterly call with investors. Best way of measuring that progress in my view is a careful reading of the record that now has been built at the FCC in response to the NOI issued in August. For the purposes of today's call, I want to focus on the positive momentum which is built in the record towards near consensus on two crucial points.

The first, the benefits of broadband for critical infrastructure and enterprise users, particularly and specifically for utilities, are undeniable and growing more important with the passage of time. The smart grid, smart cities, intelligent vehicles, situational awareness through mobile video and countless operational necessities are better served by the improved flexibility, latency and capacity of broadband.

Second point, first tier carriers of LTE serve hundreds of millions of consumers and present compelling proof of the new miraculous capabilities of broadband. But the record reflects a historic enduring point of view that consumer commercial carriers fail to meet the rigorous requirements of priority access, coverage, control, reliability and cyber security, which many critical infrastructure entities, particularly and specifically utilities, cannot do without.

While these two points jump out from the bulk of the comments, there are multiple players who take the view that 900 megahertz is not the band on which the FCC should rely to address these needs. A rough paraphrase of these comments might be, we agree on the merits of private carrier broadband for critical infrastructure, but can't the FCC find other spectrum below 1 gigahertz which can be made available exclusively [ph] and without options (12:17) for the critical infrastructure industry.

A very promising and much more realistic variant of this, if wishes were horses suggestion is outlined by several commenters. This variant can be paraphrased as, we would rather not use 900 megahertz, but if we must, then here are the conditions under which the FCC should proceed. This latter argument is the basis for our opinion at pdv that very favorable momentum is now at work, because everything we've ever said on the record supports most conditions which these comments request.

For example, we made clear that any harmful interference to existing incumbents must not be tolerated, that all appropriate cost of rebanding must be reimbursed by the private broadband licensee, and that sufficient spectrum below 937 megahertz exists in virtually every market to accommodate any incumbent choosing to remain a narrowband user.

We've also provided to the Commission substantial third-party technical support showing the very, very low risk of any potential harmful interference, which combined with other supporting comments, we believe, the FCC should find conclusive. We have been consistent over the last three years, and pdv now has made measurable progress toward resolving the fears of harmful interference with incumbents.

On October 24, 2017, EWA and pdv filed at the FCC a request for extension of the reply comments deadline, and we filed alongside three prominent and vocal opponents, Southern Company, Sensus and UTC. The rationale for the request was the progress our prospective teams are making towards addressing the apprehensions that have caused proponents of broadband private carrier services to withhold support from achieving exactly that outcome at 900 megahertz.

No guarantee can be made that we will succeed, but we continue those conversations and remain optimistic that more support on and off the record for 900 megahertz broadband [ph] carrier (14:52) option will be voiced. Of course, any reading of the record, including the comments filed on October 2 and the reply comments filed just

last week, reflects conflicting views of issues that must be resolved for a comprehensive industry consensus will be in sight.

For example, several of the largest incumbents in the electric utility space make one explicit argument that retuning of these narrowband systems from above 937 megahertz to below 937 megahertz will be more complicated than several earlier instances of rebanding, including at 800 megahertz and that mission-critical system cannot be retuned without unnecessarily high risk.

The record now includes a significant amount of evidence that these beliefs are unfounded. There are no systems at 900 megahertz, the record now reflects, that exceed either the scale, scope, complexity or mission criticality, of public safety and other critical infrastructure systems that were routinely and safely rebanded at 800 megahertz. In fact, we have already worked cooperatively to retune several large complex incumbents.

Shared view of EWA and pdv continues to be that techniques exist for safely retuning all 900 megahertz frequencies above 937 megahertz. These techniques are proven, not theoretical, and should persuade the FCC that fears of retuning are without merit. While it's not my intention today to review with you all of the principal arguments advance in the record, I do want to make a few other general observations.

First, EWA and pdv engaged several recognized technical experts and assigned them the task of evaluating all of the potential causes of interference, which might develop in a situation where a new broadband carrier is unable to operate in adjacent spectrum without an external guard band. Recall that there is ample reason for us to take the additional caution of bringing in outside experts. Since our business plan for pdv hinges on non-interference and since the largest 900 megahertz incumbents are intended targets ultimately for use of our broadband services, it makes no sense for us to leave a stone unturned in getting to the right answer.

Reading the voluminous engineering analyses we placed in the record versus the mostly conclusory claims of interference relied upon by several opposing commenters should convince an objective reader and thus convince the FCC that today's LTE technology has all of the flexibility, including its own internal guard bands, to flourish in a rules environment requiring stringent adjacent channel protection measures such as those suggested by pdv. In fact, we believe LTE will be a better neighbor to incumbents than the higher powered LMR systems allowed today.

Taking seriously each argument for preserving a 30-year status quo in this very valuable and underutilized band, EWA and pdv have now laid out a record on which the FCC can prudently build the next steps in this proceeding, and that is a notice of proposal we're making that opens the door for innovation, flexibility and private carrier services that so many in the industry are now supporting. The second observation I'd like to make, without unduly monopolizing our time, is to echo a theme that pdv and EWA had woven through our comments and reply. That theme is optionality.

One thing I like to do when engaged in a contested process such as we have here is to put myself in the place of the more serious and most genuine opponent. Thus, I hypothesized a major 900 megahertz incumbent with substantial narrowband facilities, multiple internal processes that depend on these facilities and no urgent need for undertaking a move to broadband. If I were such an incumbent utility, reading the record in this proceeding and thus being made aware that other similar utilities have very different needs and timeframes that suggest much more openness to the change represented by broadband, what then would I want to have happened?

My answer for this hypothetical entity is that I would want optionality in the band. Awareness and appreciation by the FCC that narrowband is as much entitled to protection as broadband is entitled to be chosen as an alternative

by differently situated utilities. Thus, throughout our comments and replies, we encouraged the FCC to make optionality a beacon for working through the complexities of this proceeding and enabling the coexistence and preservation of incumbent narrowband systems.

And finally, I'd like to make an observation that may be a bit more difficult to extract from a reading of this record, but is equally as important as any of the others I have mentioned. While 900 megahertz as a band is handled very differently in the United States than in the rest of the world, the last three years have shown an explosion of LTE systems and devices outside the U.S. that routinely include band-aid, that is the 900 megahertz, in both cell site equipment three Node Bs and literally hundreds of different device models.

What this means for the proposal that we've been advocating at the FCC and advocating with numerous potential customers of private carrier broadband is that the feasibility of harnessing global economies of scale both as to infrastructure and devices is real today versus being mostly theoretical three years ago. John mentioned Google's Project Loon in Puerto Rico. There, Google has been able to use our spectrum with existing devices on band-aid. It unfortunately takes a lot of time for market formation with new technologies, and the process is by no means accelerated when regulatory obstacles clutter the path forward as has happened here.

But we remain confident that our vision is now coming into much clearer focus, a vision of next-generation technology enabled by a time-tested private carrier model. Next steps for us are to continue negotiating and attempting to persuade interested parties in this proceeding that new rules at 900 megahertz can be fashioned and implemented rapidly, which serve the public interest by releasing very valuable spectrum from yesterday's regulatory paradigm. These stars can align for the benefit of all parties.

I welcome the chance either later in this call or at any appropriate time to dig more deeply into the many layers of this complex undertaking. As before, I want to thank every investor for your support and confidence that pdv can bring its vision into reality. The process of bringing constructive change to a regulated industry requires patience, capital and the skills of many professionals. I'm confident that we have all of these elements at hand.

Thank you, and now I'll turn it over to Tim.

## **Timothy Gray**

Chief Financial Officer, pdvWireless, Inc.

Thanks, Morgan. Good afternoon, everyone. I'll review the key highlights of the company's financial results for the second quarter of fiscal year 2018. My review is not intended to replace the full financial disclosures enclosed in the company's Form 10-Q filed today or our most recent Annual Report on Form 10-K filed with the SEC, and we encourage listeners to review those filings for additional information.

Revenue for the company's second fiscal quarter ended September 30, 2017 was \$1.5 million compared to \$1.1 million for the quarter ended September 30, 2016. Also, for the quarter, the company reported a net loss of negative \$8.2 million or negative \$0.57 per share compared with a loss of \$7.8 million or negative \$0.54 per share for the same quarter in the previous year. Last year's second quarter included \$1.2 million of expenses to support the FirstNet bid or negative \$0.08 per share.

As previously disclosed, in accordance with GAAP, we continue to increase the valuation allowance related to our deferred tax assets. In the three months ended September 30, 2017, the company recorded a non-cash income tax expense of \$700,000 or negative \$0.05 per share to increase the valuation allowance. In fiscal year 2017, we recorded the adjustment to the valuation at year-end and there was no comparable expense in the quarter ended September 30, 2016.

Adjusted EBITDA for the second quarter was negative \$5.6 million compared with negative \$6.2 million for the same period in the prior year. The positive change in adjusted EBITDA over our previous year is due to the elimination of the FirstNet bid-related expenses and higher revenues, offset by higher sales and marketing costs.

The company has a strong cash position with \$110.5 million in available cash as of September 30, 2017, a decrease of \$5 million from June 30, 2017. There were no additional purchases of spectrum in the quarter, but I will note that we will continue to opportunistically purchase additional spectrum when it makes strategic and financial sense. In support of our efforts going forward, it's important to note that we do anticipate additional expenses for our regulatory efforts and in continuing to expand our business development pipeline.

That concludes our prepared remarks. Thank you for joining us. The operator will now accept questions.

# **QUESTION AND ANSWER SECTION**

**Operator:** Thank you. [Operator Instructions] Your first question is coming from Sameed Musvee. Please announce your affiliation and pose your question. Your line is now live.

#### Sameed Musvee

Associate Analyst, B. Riley FBR, Inc.

Hi, this is Sameed from B. Riley FBR. Thanks for taking the question, guys. So, I guess, Morgan and team, you guys mentioned in the reply comment to the NOI, I think the key thing we took away from that is flexibility. Having this broadband [ph] network (27:29) would give the most flexibility to all incumbents and potential new players who want to utilize this spectrum. Could you comment on the specific value-add broadband would have to key utilities who are even opposed to this regulatory initiative, because as we know, some of these key utilities have initiated broadband [ph] from before for (27:50) some of their own use in other megahertz of spectrum? I'd like to hear your comments on the key value-add [ph] this program is (27:56) give to the people who are opposed to this proposal.

John C. Pescatore President, Chief Executive Officer & Director, pdvWireless, Inc.

We're going to have Rob Schwartz answer that.

#### Robert Schwartz

Chief Strategy & Development Officer, pdvWireless, Inc.

Sure. Thanks, John, and thanks for the question. I think if you look at the breadth of comments, as Morgan and John talked about, one of the consistent messages is clearly that there is a growing need for broadband overall in the critical infrastructure sector, and more broadly from the comments, from enterprise as well. And as we've talked about in the past, there's not a lot of spectrum alternatives when you look at cost-efficient deployment of broadband services, especially for LTE, below 1 gigahertz. And that's really a fundamental requirement in most networks in order to have a good, broad cost-efficient coverage for a network.

So, there are other alternatives out there for broadband in commercial services that are used today throughout enterprise and other places, but those don't provide the level of quality, reliability, scalability and control that most utilities has said on the record and clearly critical infrastructure require. Most networks today are private networks that support the mission-critical uses for those enterprises and utilities, and we think that that's still the case going

## pdvWireless, Inc. (PDVW) Q2 2018 Earnings Call

forward. So, from a need standpoint, there has been a substantial growing need of use cases by utilities specifically as they go beyond just narrowband voice communications into more robust data communications to support things like enhanced SCADA services, enhanced metering systems, other field area network requirements and getting a bit into video for use for all kinds of things including security services.

#### John C. Pescatore

President, Chief Executive Officer & Director, pdvWireless, Inc.

And Rob leads – among his many responsibilities, he's leading our business development and commercial outreach to the critical infrastructure community. And what he is talking about comes from probably a year and a half now, where we have been out meeting with large critical infrastructure entities, understanding their needs, requirements, what they'd like to have, and have seen this need develop clearly over that time.

#### Morgan Edward O'Brien

Vice Chairman, pdvWireless, Inc.

Yeah. Let me just make a suggestion for anybody who wants to pursue that point, and I think it's a very important point. If you read, for example, the comments filed by Duke, Duke historically has not been a proponent of our petition. But if you read their comments, they walk through what they need and how they can't get that need met. They talk about the advantages of broadband, but the disadvantages of getting that broadband from commercial, because they can't get the level of coverage that they want or the redundancy or cyber security or whatever.

They then talk about the dilemma of trying to get at spectrum – using spectrum above 1 gigahertz, trying to get the coverage that they can afford, and they basically made the case they can't do that. And so, they really come to the conclusion, gee, we have to have our own spectrum, it has to be broadband, it has to be below 1 gigahertz, and then they blink and say, but not at 900 megahertz. I think the more important part of the comments is the part that sort of weighs out what the real choices are here.

And then, you look at, can 900 megahertz and can a sharing of 900 megahertz between broadband carriers above 937 megahertz and narrowband below 937 megahertz, is that really the best option available. And I think the record shows that it is, and we need to – that's where we're pointing our efforts saying, we're not trying to tell anybody what they have to do. We're trying to create an opportunity for anybody that wants to pursue it, and in doing so, not cause harmful interference to any remaining incumbents. That's really what this all boils down to. And will the FCC see it that way? I think increasingly, the record suggests that they will, but that's what we have to wait and see.

#### Sameed Musvee

Associate Analyst, B. Riley FBR, Inc.

Got it. That's helpful. And I guess as was pointed out on the record, one of the concerns from some of the incumbents is the potential for disruption to critical communications. I think one of the advantages of you guys being an experienced management team is you've through this process before, you guys have done the rebanding of the 800 megahertz spectrum. Could you talk about the key lessons kind of learned from that process, and based on that process, how much incrementally confident you are that you can do this process with minimal disruption to key incumbents?

#### Morgan Edward O'Brien

Vice Chairman, pdvWireless, Inc.

I would answer it by saying – this is Morgan – based on the experience, total confidence, having talked to many of the players, players who were involved on the Nextel side and players who were consultants that had absolutely

nothing to do with Nextel, but were engaged by public safety and others. There is a process. Not surprisingly, you develop a process. There is a planning processes, an implementation process. Let's be careful not to do this process, a redundancy processes, all of these things which, depending on the complexity and size of the system, are more and more important.

Most of the systems at 900 megahertz require little or none of that. They require a limited window of time in which radios that are programmed – that were programmed on these channels get reprogrammed to those channels, and other than that, nothing. Just not say, and you hear from them, that their big operators that are very concerned and appropriately so that their operations not be negatively influenced. It's clear although – and it's clear to us and we keep reiterating it on the record that the comparable facilities rule of the FCC, which we absolutely expect, says that the party that gets the broadband pays the cost, and that includes the planning costs, includes the redundancy costs.

It includes all the reasonable costs, and these have been set out in literally hundreds of proceedings in which the FCC has participated, sort of what are the reasonable and expected elements of cost for rebanding, and we cannot find a single example of any of the dire consequences that are predicted as just flat out statements in some of these comments. So, we understand that you never have a situation in which incumbents, particularly incumbents that aren't looking ahead to what they might need in the future, you never find a situation in which incumbents want to be inconvenienced. But that isn't the basis on which these things are decided.

#### John C. Pescatore

President, Chief Executive Officer & Director, pdvWireless, Inc.

There are also very natural times to do these reconfigurations or rebandings. For example, there are quite a number of the larger systems that are approaching end-of-life, and these entities might be buying new systems. And that's a perfect time, because they're going through a complete transition in any event, and you can do your frequency panning and work with them in the development of a new system.

But if – even as you see some of the comments talking about hurricanes or issues that might be in a particular area, those are scheduled outside of those windows and can be planned for. There's probably nothing that hasn't been seen in the rebandings previously that that knowledge hasn't been institutionalized by not just us as a management team, but by the very many consultants and vendors in the ecosystem that worked through those rebandings in previous situations.

## Morgan Edward O'Brien

Vice Chairman, pdvWireless, Inc.

Yeah. Here's an order of magnitude number for you that just blows us away. An FCC staffer quoted the number of 2 million radios that were involved in the 800 megahertz rebanding. What we're talking about here is nothing remotely compared to that. So, the 800 megahertz represents, in our view, success. It was handled essentially without negative incident, solved the problem it was designed to solve, but it's much more complex, much more extensive than what we're talking about here, which is why the dire consequences predicted in some of the comments just don't hold up to the record. And we're putting this on the record, and the FCC is no stranger to rebanding. They've been active participants in this process.

#### John C. Pescatore

President, Chief Executive Officer & Director, pdvWireless, Inc.

Yeah. And we understand their concern, but we will work with them to overcome those concerns. And it's just a fact, it can and will be done.

#### Sameed Musvee

Associate Analyst, B. Riley FBR, Inc.

Got it. Appreciate the color. I'll turn the call over.

**Operator**: [Operator Instructions] We have no further questions in queue.

## John C. Pescatore

President, Chief Executive Officer & Director, pdvWireless, Inc.

Well, thank you and we want to thank all of you for listening today and for your support. We greatly appreciate it. We will continue to communicate as we move through this process together. And if you have any questions, you know how to reach us, so feel free. Have a great evening.

**Operator:** Thank you. Ladies and gentlemen, this does conclude today's conference call. You may disconnect your phones lines at this time and have a wonderful day. Thank you for your participation.

#### Disclaimer

The information herein is based on sources we believe to be reliable but is not guaranteed by us and does not purport to be a complete or error-free statement or summary of the available data. As such, we do not warrant, endorse or guarantee the completeness, accuracy, integrity, or timeliness of the information. You must evaluate, and bear all risks associated with, the use of any information provided hereunder, including any reliance on the accuracy, completeness, safety or usefulness of such information. This information is not intended to be used as the primary basis of investment decisions. It should not be construed as advice designed to meet the particular investment needs of any investor. This report is published solely for information purposes, and is not to be construed as financial or other advice or as an offer to sell or the solicitation of an offer to buy any security in any state where such an offer or solicitation would be illegal. Any information expressed herein on this date is subject to change without notice. Any opinions or assertions contained in this information do not represent the opinions or beliefs of FactSet CallStreet, LLC. FactSet CallStreet, LLC, or one or more of its employees, including the writer of this report, may have a position in any of the securities discussed herein.

THE INFORMATION PROVIDED TO YOU HEREUNDER IS PROVIDED "AS IS," AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, FactSet CallStreet, LLC AND ITS LICENSORS, BUSINESS ASSOCIATES AND SUPPLIERS DISCLAIM ALL WARRANTIES WITH RESPECT TO THE SAME, EXPRESS, IMPLIED AND STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, ACCURACY, COMPLETENESS, AND NON-INFRINGEMENT. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, NEITHER FACTSET CALLSTREET, LLC NOR ITS OFFICERS, MEMBERS, DIRECTORS, PARTNERS, AFFILIATES, BUSINESS ASSOCIATES, LICENSORS OR SUPPLIERS WILL BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, INCLUDING WITHOUT LIMITATION DAMAGES FOR LOST PROFITS OR REVENUES, GOODWILL, WORK STOPPAGE, SECURITY BREACHES, VIRUSES, COMPUTER FAILURE OR MALFUNCTION, USE, DATA OR OTHER INTANGIBLE LOSSES OR COMMERCIAL DAMAGES, EVEN IF ANY OF SUCH PARTIES IS ADVISED OF THE POSSIBILITY OF SUCH LOSSES, ARISING UNDER OR IN CONNECTION WITH THE INFORMATION PROVIDED HEREIN OR ANY OTHER SUBJECT MATTER HEREOF.

The contents and appearance of this report are Copyrighted FactSet CallStreet, LLC 2017 CallStreet and FactSet CallStreet, LLC are trademarks and service marks of FactSet CallStreet, LLC. All other trademarks mentioned are trademarks of their respective companies. All rights reserved.