Agenda

1. Introduction
2. FCC Update
3. Market Opportunity
4. Product Offering
5. Go To Market Strategy
6. Business Model
pdvWireless Safe Harbor Statement

Any statements contained in these slides or made during the oral presentation that do not describe historical facts are forward-looking statements as defined under the Federal securities laws. These forward-looking statements include, but are not limited to, statements regarding: (i) the Federal Communications Commission (the “FCC”) will issue a Report and Order that supports the deployment of broadband LTE networks, technologies and solutions in the 900 MHz band on a timely and economically viable basis; (ii) the Company’s ability to satisfy the FCC’s future requirements to qualify for broadband licenses; (iii) the Company’s capital requirements and the timing and costs of its retuning and spectrum acquisition activities; (iv) the demand by, and the Company’s potential contractual terms with, electric utilities and other critical infrastructure providers for the lease of its spectrum assets; (v) the valuation of the Company’s spectrum assets; and (vi) the Company’s business model, including the timing and amount of its contract revenues, operating costs and gross margins. Any such forward-looking statements are based on the Company’s current expectations and are subject to a number of risks and uncertainties that could cause its actual future results to differ materially from its current expectations or those implied by the forward-looking statements. These risks and uncertainties include, but are not limited to: (i) the Company’s FCC initiatives may not be successful on a timely basis or at all, and will continue to require significant time and attention from the Company’s senior management team and its expenditure of significant resources; (ii) any final Report and Order issued by the FCC may differ, possibly significantly, from the Notice of Proposed Rulemaking; (iii) even if its FCC initiatives are successful, the Company may not be successful in commercializing its spectrum assets to its targeted customers and markets; (iv) the Company has no operating history with its proposed business plan, which makes it difficult to evaluate its prospects and future financial results, and its business activities, strategic approaches and plans may not be successful; (v) the Company will need to secure additional financing to support its long-term business plans; (vi) the Company may not be able to correctly estimate its operating expenses or future revenues; (vii) many of the third parties who have objected to the Company’s FCC initiatives, or with whom it competes against, have more resources, and greater political and regulatory influence; (viii) the value of the Company’s spectrum assets may fluctuate significantly based on supply and demand, as well as technical and regulatory changes; and (ix) spectrum is a limited resource, and the Company may not be able to obtain sufficient contiguous spectrum to support its spectrum initiatives or its planned business operations and future growth. These and other factors that may affect the Company’s future results of operations are identified and described in more detail in its filings with the Securities and Exchange Commission (the “SEC”), including its Annual Report on Form 10-K for the fiscal year ended March 31, 2019, filed with the SEC on May 20, 2019. You should not place undue reliance on these forward-looking statements, which speak only as of the date of this press release. Except as required by applicable law, the Company does not intend to update any of the forward-looking statements to conform these statements to actual results, later events or circumstances or to reflect the occurrence of unanticipated events.
The Nextel Experience

- Underutilized Spectrum
- FCC Rule Modification
- Private Enterprise
The PDV Opportunity

- Underutilized Spectrum
  - 900 MHz Band

- FCC Rule Modification
  - Enable Broadband

- Private Enterprise
  - Critical Infrastructure
Four Key Takeaways

1. FCC Process
2. Enterprise and Critical Infrastructure Demand
3. Global LTE Band 8
4. Not a Typical Wireless Company
Why IOUs?

Regulated Industry + Rate of Return = IOU Opportunity

Prudent spend for customer benefit

Investing billions in capital improvement

Large Addressable Market
# Key Elements for Critical Infrastructure Solution

## 900 MHz Band

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nationwide, Private, Licensed Spectrum</td>
<td></td>
</tr>
<tr>
<td>Below 1 GHz</td>
<td></td>
</tr>
<tr>
<td>Global LTE Standard</td>
<td></td>
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<tr>
<td>Large Ecosystem</td>
<td></td>
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<tr>
<td>6 MHz for Broadband</td>
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</table>
A great new company needs a vision of a better world within reach of its most aggressive grasp.

pdvWireless has that vision.
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The Nationwide 900 MHz Licensing Landscape

- CII: 13%
- FCC: 22% (vacant)
- SMR: 6%
- PRIVATE ENTERPRISE: 7%

*Based on calculated MHz-Pops from currently available FCC ULS license data, 2010 US Census data, and PDV analysis. PDV ownership varies by market. CII – Critical Infrastructure Industry
...to reconfigure the 900 MHz band to facilitate the development of broadband technologies and services, including for Critical Infrastructure.”
Before and After

Current

Narrowband
3 MHz
120 CH-Site

47 CFR Part 27.5
Broadband 6 MHz – County

Post Realignment

Narrowband
1 MHz
39 CH-Site
NPRM Elements

- 6 MHz
  Enables Broadband

- Retains Narrowband
  Room to Move Incumbents

- Broadband Eligibility
  Requires PDV Agreement

- Licensing by County
  PDV’s Suggested Approach

- Technical Rules
  PDV’s Suggested Approach
Important Focus within NPRM

- Voluntary Retuning Process
- Auction Process
- Size of Broadband Block
- Retuning Process
Proven Expertise

NEXTEL®

iDEN

800 MHz

LTE

pdvWIRELESS®

900 MHz

© 2019 PDVWIRELESS
Retuning

Level of Effort

Level of Effort

© 2019 PDVWIRELESS
Total of 3,233 counties in the US and territories; Incumbent counted if site licensed in county (PDV excluded)
Minneapolis

3 Licensees:
Railroad Association
TAMO LLC
GM Research Corporation

6 MHz Broadband Allocation

52% 125 channels
pdvWIRELESS

45% 108 channels
FCC

3 Additional Licensees
7 Channels Owned

Additional 82 owned Channels outside Broadband Allocation
Chicago

6 Largest Licensees:
24 Channels: Edison / Exelon
13 Channels: Communications Unlimited
13 Channels: ESP
12 Channels: Ford Motor Co.
 7 Channels: UPS
 4 Channels: NIPSCO

6 MHz Broadband Allocation

19 Additional Licensees

107 Channels Owned

Additional 91 owned Channels outside Broadband Allocation

55% of 133 channels
Fundamental Transformation Within the Industry
Decarbonization Driving Renewables
Central Generation One-Way Flow
Integration of Distributed Energy Resources
Two-Way Energy Flow
Two Way Grid with LTE
U.S. power outages cost customers $79B - $115B each year.
Renewable Energy Activity

- Current Renewable Energy Activity
- No Renewable Energy Requirements
Average Cost of Deploying 1 Mile of Fiber = $20-$30K
Billions of Global IOT Connected Devices

(Source: Statista)
Utility Systems Require Large Amounts of Data, Situational Awareness and Security
Systems Connected to…the Internet Constitute a Systemic Cyber Risk Among Critical Infrastructure.

President’s National Infrastructure Advisory Council Report 2017
Grid Modernization

**Transmission Automation**
- Tension Line Motors
- CCTV Cameras

**Distribution Substations**
- RTUs

**Gas Operations**
- Pipeline RTUs

**Mobile Workforce**
- Data Terminals

**Distributed Generation**
- Renewable Energy Resources
- Microgrids
- Distributed Storage

**Location Metering**
- Meter Collectors

**Distribution Automation**
- Reclosers
- Capacitor Banks
- Switches
- Intelliruptors
- Other

**PoleTop Sensors**
- Sensor Collectors
Utility-Grade Service Requires Private Broadband Networks
The News

MO Smart Energy Plan
CT Response to PURA Docket
NJ Energy Strong Program

Billions spent on average for grid modernization programs within each state, enabled by private communication systems.
Why IOU’s

- Urgent Need
- Critical Industry
- Essential Service
- Everybody
- Ready Funding
US Investor Owned Utilities

- IOU Service Area
US IOU Market

220M
Population Served

$260B
2016 Revenue
Lease Treatment

Spectrum Lease = Capital Lease
States Push Grid Modernization

2017 Grid Mod Spending was $123B
Other Segments

Additional Private LTE Platform Opportunities

- Oil & Gas
- Mining
- Railroads
- Water
Multiple Sectors Rely on Electric Grid

Strong Interdependence with Electrical Utility Service Area
Multiple Segments Have Common Requirements

- Security
- Safety
- Reliability
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Key Elements of Our Offering

- 900 MHz Broadband
- Nationwide
- Communicate to CII Network of Networks
- Long-Term Leases
Vision for Critical Infrastructure

Utility System

Network of Networks
PDV Product Roadmap

- Foundational Spectrum
- Accelerate Adoption
- Enhance Profitability
900 MHz is Low Band Spectrum
Low Band Spectrum Advantages

Distance (radius)

- 900 MHz: 2.5x
- 2.5 GHz: 1x

Geographic Coverage (area)

- 900 MHz: 5x
- 2.5 GHz: 1x
Coverage Comparison

Union, NM
9901 sq. km

900 MHz
150 KM²

2.5 GHz
30 KM² = 20% of 900MHz
Coverage Comparison

900 MHz | 67 Sites

Union, NM 9901 sq. km

2.5 GHz | 333 Sites

Union, NM 9901 sq. km
Lower Total Cost of Ownership

Mobile P-LTE Network (67 vs 333 sites)
Relative 10-Year Capex & Opex of Low Band vs. Mid Band

- Capex ($200K per site)
- 10-yr Opex ($4,000 per site/mo)

- 900 MHz:
  - 20% Capex
  - 14% 10-yr Opex
  - 6% Lower Total Cost

- 2.6 GHz:
  - 100% Capex
  - 71% 10-yr Opex
  - 29% Relative 10-Year Cost

5X Higher OPEX
900 MHz Part of a Global Standard

At-a-Glance

- 18+ Years driving 2G, 3G, 4G and 5G standards
- >1.2K Active Technical Specifications
- 100,000s Member-driven technical contributions
- 2,000+ Man years in cumulative meeting time
- 550+ Individual member companies
- 16 Specialized technical working groups
Global Standard Defined

All IP

- Reliability and low latency
- Cellular based security
- Future proof
- Device ecosystem
- Interoperability
- Seamless mobility
- Coverage
- Capacity

LTE commercial networks

717

Source: Qualcomm and PDV

3.99B subscribers

13,700 devices
## Private Network Advantages

<table>
<thead>
<tr>
<th>Private Networks</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Prioritized Data, Design and Repair</td>
<td></td>
</tr>
<tr>
<td>Reliability</td>
<td>Built for Industrial Quality of Service</td>
<td></td>
</tr>
<tr>
<td>Resilience</td>
<td>Restoration in the Owner's Control</td>
<td></td>
</tr>
<tr>
<td>Economics</td>
<td>Reducing Operating Expenses</td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>Physically Separate: “Air-gap”</td>
<td></td>
</tr>
</tbody>
</table>
## Cost of an Outage

<table>
<thead>
<tr>
<th>Customer</th>
<th>Cost per Event</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Momentary</td>
</tr>
<tr>
<td>Medium &amp; Large Commercial &amp; Industrial</td>
<td>$12,952</td>
</tr>
<tr>
<td>Small Commercial &amp; Industrial</td>
<td>$412</td>
</tr>
<tr>
<td>Residential</td>
<td>$4</td>
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</tbody>
</table>

According to Schneider Electric, the combined U.S. economic costs of electric outages total ~$80 Billion annually.

---

**Cost of an Outage per Event**
- Sourced from "Updated Value of Service Reliability Estimates for Electric Utility Customers in the US" by Lawrence Berkeley National Laboratory (2015)
- Meta-dataset includes 34 different datasets from surveys fielded by 10 different utility companies between 1989 and 2012, totaling over 105,000 observations
- Surveys include 44,328 observations for medium and large C&I customers, 27,751 for small C&I customers and 34,212 for residential customers
Securing the Grid with Private LTE

NIAC: The President's National Infrastructure Advisory Council

Surviving a Catastrophic Power Outage

How to Strengthen the Capabilities of the Nation

December 2018

THE WALL STREET JOURNAL.

America's Electric Grid Has a Vulnerable Back Door—and Russia Walked Through It

A Wall Street Journal reconstruction of the worst known hack into the nation's power system reveals attacks on hundreds of small contractors

By Rebecca Smith and Rob Barry, Jan. 10, 2019 11:18 a.m. ET

One morning in March 2017, Mike Vitello's work phone lighted up. Customers wanted to know about an odd email they had just received. What was the agreement he wanted signed? Where was the attachment?
Distributed Energy Resources
Two-Pronged Approach

Our “Go to Market” strategy utilizes both Bottom-Up and Top-Down approaches

**Bottom-Up**
Identifying Demand through Account Management

**Top-Down**
Driving Utility Industry Regulators to Support Our Initiative

Drive Industry Adoption
Federal and State Activities

Influencers:
- DOE
- FERC

Policy Enactors:
- NARUC
- Rate Case Process
- Utility
Federal Funding for Grid Modernization

$4.5B
Initial Government Investment

$5.5B
Private Capital Funding

Public government funding attracted additional private capital and was a catalyst for accelerated smart grid deployment.
State Regulatory Action
Two-Pronged Approach

Our “Go to Market” strategy utilizes both Bottom-Up and Top-Down approaches.

**Bottom-Up**
Identifying Demand through Account Management

**Top-Down**
Driving Utility Industry Regulators to Support Our Initiative

Drive Industry Adoption
Parallel Progress

# Customer Engagements: Broadband for CI/Enterprise

- **2017**: Initial engagement
- **2018**: Moderate increase
- **2019**: Significant increase (~40)

**FCC Process**
- **2017**: Petition for Rulemaking
- **2018**: Notice of Inquiry
- **2019**: NPRM (Notice of Proposed Rulemaking)
Falling Conductor Protection

Requires low latency and high bandwidth from a broadband network to quickly de-energize before striking the ground.
Band 8: 4,200+ Devices and Counting

Critical Infrastructure Band 8 Device Suppliers

Cisco Systems  Ericsson  General Electric  Nokia  Sierra Wireless
A Single Field Area Network (FAN)

Ameren Private LTE Network

- Distributed Generation
- Transmission Automation
- Distributed Substations
- Pole Top Sensors
- Gas Operations
- Feeder Pole
- Field Force (MDT)
- Location Metering
Southern Linc Leads the Way
as one of 2018’s Top 10 Utilities in Economic Development
### PDV Forms Utility Industry Alliance

- Information Sharing
- Collaboration
- Increase P-LTE Interest
- Drive Scale and Innovation

#### Utilities

- Ameren
- National Grid
- Evergy
- Southern Linc
- Xcel Energy

#### Vendors

<table>
<thead>
<tr>
<th>Burns &amp; McDonnell</th>
<th>Cisco Systems</th>
<th>Encore Networks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ericsson</td>
<td>Federated Wireless</td>
<td>General Electric</td>
</tr>
<tr>
<td>Motorola Solutions</td>
<td>MultiTech Systems</td>
<td>Sierra Wireless</td>
</tr>
<tr>
<td>4RF</td>
<td>Council Rock</td>
<td>pdvWireless</td>
</tr>
<tr>
<td>Sonim</td>
<td>Tait Communications</td>
<td></td>
</tr>
</tbody>
</table>
NREL: High-Impact Project

Industry Advisory Board Members
In Summary

1. Spectrum Opportunity
2. Growing Market
3. Customer Demand
4. Unique and Valuable Business Model
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Spectrum Comparables

<table>
<thead>
<tr>
<th>Implied Nationwide 6 MHz Valuation$</th>
<th>$1.8B</th>
<th>$2.9B</th>
<th>$5.2B</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>$/MHz Pop</th>
<th>600 MHz Incentive Auction$</th>
<th>JP Morgan 2 Research 2019</th>
<th>AWS-3 3 Auction</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.93</td>
<td>$1.50</td>
<td>$2.69</td>
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</tr>
</tbody>
</table>

1 $/MHz Pop value is the national average of FCC auction 1002 covering all geographies and licenses in the auction
2 $/MHz Pop value is the national average of < 1 GHz spectrum reported in 1/15/2019 JPMorgan Report “Spectrum Overview: Carrier by Carrier Spectrum Value & Strategy Across the Wireless Industry”
3 $/MHz Pop value is the national average of FCC auction 97 covering all geographies and licenses in the auction
4 Implied Valuations calculated by multiplying 10MHz nationwide valuation by 60% to reflect 6MHz position.
Long-Term Lease Attributes

- 20+ Year Lease Terms
- High Credit Quality Customer Base
- Annual Escalators
- Renewal Options
- Low Servicing Cost

Portfolio of Investment
Grade Leases with Long Term Escalating Cash Flows
PDV Contracted Revenue Projection

Annual Run Rate

Year 5
FY 2024

$125M

$150M
PDV Contracted Revenue Projection

Annual Run Rate

- Year 5 (FY2024): $125M
- Year 10 (FY2029): $250M
- Year 10 (FY2029): $500M

Additional Opportunities

- Increased Utility Penetration
- Penetration into Other Vertical Markets
- Network of Networks and Other Services
- Other Spectrum Opportunities
Potential Customer Telecom/IT Capital Spend

- $30B
  IOU Projected 2023 Telecom Capex

- $26B
  Other Vertical IT Capex

$56B
Total Telecom/IT Capex

PDV’s spectrum lease offering represents a fraction of capital spend
Relocation of Incumbents

Excludes MTA licensees and railroads and systems with 65+ sites

Large Systems
- Multi-site
- ~60 systems

Medium Systems
- Typically single site
- ~120 Systems

Small Systems
- Single Site
- ~220 systems

Excludes MTA licensees and railroads and systems with 65+ sites
Key Metrics

- **Negative Cash Flow**: Approximately $30 Million annually for 2-3 years
- **Retuning**: Estimated at $90-120 Million over 3 years
- **EBITDA Margins**: Run Rate Approaching 80% by FY2024
- **Cash on Hand (3/31/19)**: $77 Million
- **Estimated Funding Needs**: $100-150 Million
Outlook for Current Fiscal Year:

- Obtain Report and Order
- Formalize and Start Executing on Our Retuning Plan
- Explore Options to Fund our Business
- Signing at Least One Commercial Agreement
pdvWireless Board of Directors

**Paul Saleh**
Executive Vice President and Chief Financial Officer of DXC Technology (NYSE: DXC)

**Rachelle B. Chong, J.D.**

**Greg W. Cominos**
18-year career at General Electric (NYSE: GE) focused on energy, oil & gas

**Greg Haller**
29-year career at Verizon in operations, sales, marketing and solutions

**T. Clark Akers**
Managing Director, SBIC Funds Placement Division at FBR & Co.

**Singleton B. McAllister**
Extensive legal background; Senior positions held in the U.S. House of Representatives

**Mark Hennessy**
34-year career at IBM holding executive management and leadership positions

**Brian McAuley**
Chairman

**Morgan O'Brien**
Vice Chairman

7 Independent
2 Internal