Sellside Analyst Meeting

November 29, 2017
Lowell McAdam
Chairman & CEO
“Safe Harbor” Statement

NOTE: In this presentation we have made forward-looking statements. These statements are based on our estimates and assumptions and are subject to risks and uncertainties. Forward-looking statements include the information concerning our possible or assumed future results of operations. Forward-looking statements also include those preceded or followed by the words “anticipates,” “believes,” “estimates,” “hopes” or similar expressions. For those statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. The following important factors, along with those discussed in our filings with the Securities and Exchange Commission (the “SEC”), could affect future results and could cause those results to differ materially from those expressed in the forward-looking statements: adverse conditions in the U.S. and international economies; the effects of competition in the markets in which we operate; material changes in technology or technology substitution; disruption of our key suppliers’ provisioning of products or services; changes in the regulatory environment in which we operate, including any increase in restrictions on our ability to operate our networks; breaches of network or information technology security, natural disasters, terrorist attacks or acts of war or significant litigation and any resulting financial impact not covered by insurance; our high level of indebtedness; an adverse change in the ratings afforded our debt securities by nationally accredited ratings organizations or adverse conditions in the credit markets affecting the cost, including interest rates, and/or availability of further financing; material adverse changes in labor matters, including labor negotiations, and any resulting financial and/or operational impact; significant increases in benefit plan costs or lower investment returns on plan assets; changes in tax laws or treaties, or in their interpretation; changes in accounting assumptions that regulatory agencies, including the SEC, may require or that result from changes in the accounting rules or their application, which could result in an impact on earnings; the inability to implement our business strategies; and the inability to realize the expected benefits of strategic transactions.
Strategic Positioning

Network Leadership
- Fiber & densification
- Spectral efficiency
- New technologies

Customer relationships
- High-quality base
- Brand loyalty
- Scale

New ecosystems
- Media
- Telematics
- IoT

Long-term value creation
- Cash generation
- Profitability
- Return on investment
Hans Vestberg
EVP & President of Global Networks & Chief Technology Officer
Verizon Intelligent Edge Network Architecture

Access Options
- LTE, LTE-A, 5G Wireless
- Smart Cities IoT Enterprise
- Fios Consumer
- Fiber to the Cell Site Wholesale

Transport/Core Operations
- Data Centers, IT and Network Monitoring
- Digital Customer Interface – Support Systems and Orchestration

Fiber enabled multi-purpose network enabling efficiencies and new services
4G LTE – Best Network With Unlimited Data

Technology Leadership
- LTE & Antenna
- MIMO
- Advanced Modulation
- Carrier Aggregation
- Interference Control
- Architecture
- Deep fiber
- Centralized radio network
- Virtualized radio network
- Software defined network

80% to >100% capacity gain

Deep Spectrum Portfolio
- Fixed
- mmWave
- Mobility
- AWS-3 Deployment
- LAA, 5 GHz, 3.5 GHz
- 850 (Cellular Spectrum) Re-farm
- PCS Re-farm
- 700 C and AWS 1

Award Winning Performance
- 8 Consecutive National Root wins
- 19 Consecutive JD Power wins

2H Root Metrics Overall Results
(top 100 markets driven)

Consistent capital investment shifting from 4G to 5G
5G Pre-Commercial Trial Results

Download Speed Results (Mbps)

<table>
<thead>
<tr>
<th>Distance in feet</th>
<th>Median Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1,000</td>
<td>▲</td>
</tr>
<tr>
<td>1,000 to 2,000</td>
<td>▲</td>
</tr>
<tr>
<td>Beyond 2,000</td>
<td>▲</td>
</tr>
</tbody>
</table>

Successful trials in 11 markets with mmWave delivering gigabit home broadband
Combined 4G + 5G Design

Efficient multi-use fiber enabled 4G + 5G site design with mmWave
5G Capabilities & Opportunities

**Multiple 5G Dimensions**
- Ultra low latency
- Ultra reliable transmission
- Massive internet of things scale
- Security by design
- High bandwidth (Spectrum width of hundreds of MHz)

**Flexible Architecture**
- Deep fiber deployment
- Multi-access edge compute (MEC)
- Public and private network slices for new 5G use cases

New opportunities with 5G and multi-access edge compute
John Stratton
EVP & President of Global Operations
5G “orders of magnitude” change opens new markets

Major elements:

1. Capacity
2. Cost/GB
3. Technical Capabilities
   - Latency / Security

First use case – Residential broadband
U.S. broadband market – First target of opportunity

- Large Total Addressable Market
- “Wired” economics/GB
- Increased customer optionality

U.S. broadband market (2018)

- $65B Residential
  - 129M HHs
- $16B Business
  - ~10M Prems

fios
- 14M HHs

Opportunity
- 115M HHs

Initial Opportunity
- ~30M HHs

~25-30% of residential broadband market addressable by 5G

Source: Ovum, SNL Kagan, U.S. Census Bureau, and Verizon estimates
Initial commercial launch – 2H2018

Initial commercial launch plan

- 3-5 cities will launch in 2H2018
  - Sacramento, CA (part of broader PPP*)
  - Additional cities to be announced soon

- Expect 20-30% penetration
- Initial focus - Residential market

“Offer”

- Multiple customer offering
  - Broadband
  - Video
  - Voice

- End to end secure connectivity
  (home & away)
- Up to 1 gbps speeds
- Market competitive pricing

Initial commercial launch in 2H2018, broader rollout in 2019

* Public Private Partnership
Q&A
Sellside Analyst Meeting

November 29, 2017