

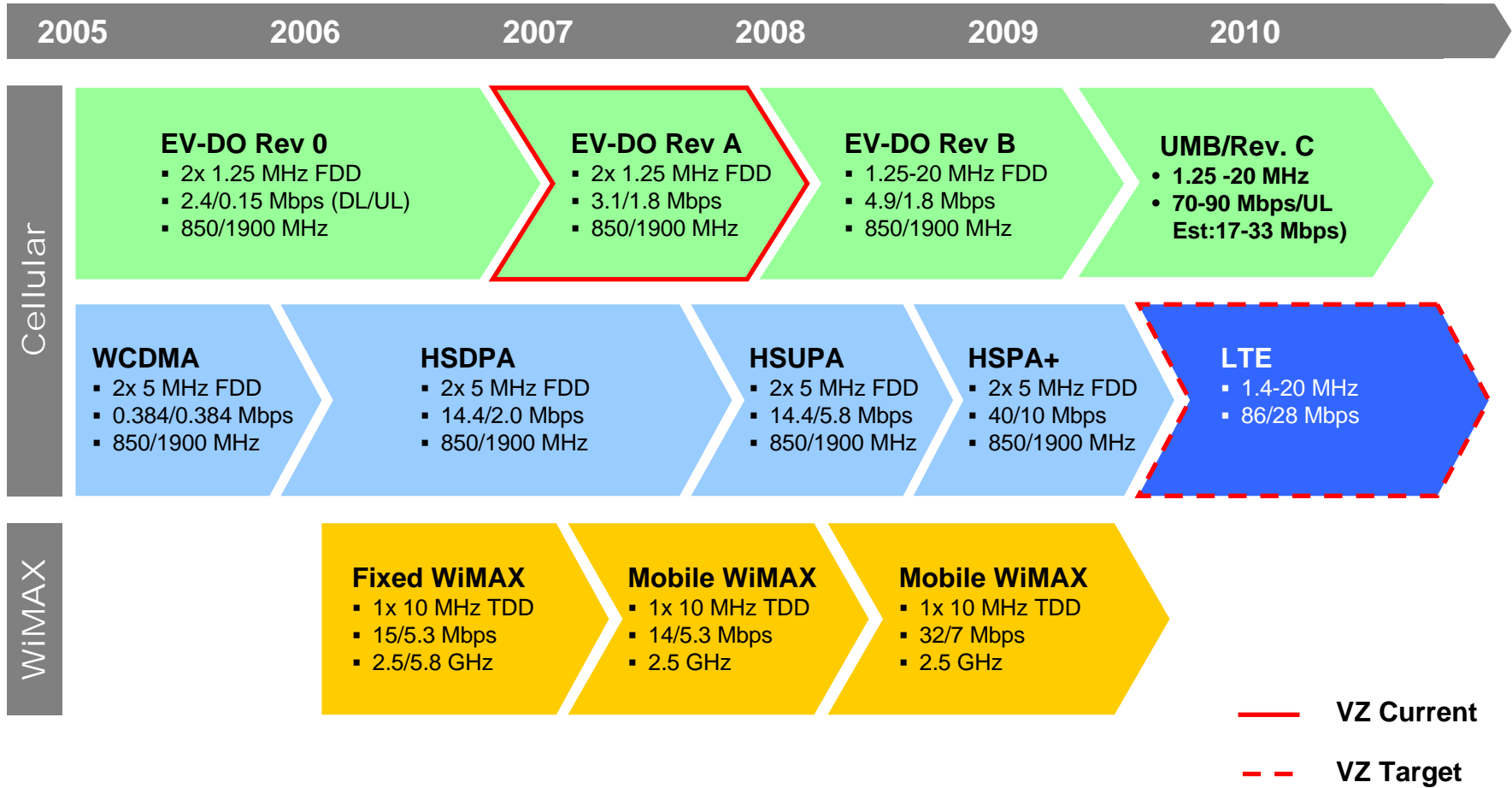


Verizon's 4G Platform: LTE
Sarnoff Symposium Panel
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- *Fourth Generation platform will deliver unprecedented performance and will usher in a new era of wireless broadband services, consumer electronic devices and applications*
- *Leverage International roaming potential of next generation technology*
- *Improve CAPEX and OPEX efficiencies*
- *Enable improved user experience and new rich services*
- *Generate new revenues*
- *Establish healthy IPR model*

Technology Evolution Timetable



- *Operational Costs*

- *High spectral efficiency, 2x - 4x increase vs. 3G*
- *Significant reduction in cost per bit*
- *Flexible deployment – 1.4 MHz to 20 MHz, many bands*
- *Flat network architecture / packet-based low cost options*
- *Best scale economies*
- *Broad device and infrastructure vendor ecosystem*

- *Healthy IPR environment*

- *IPR is spread among many companies – no single dominant company*

- *Fourth Generation platform coupled with Open Development Initiative, announced by VZ on 11/29, present a major growth opportunity for Verizon Wireless*
- International roaming
- New VoIP services
- New IP broadband rich call services
- Advertising
- New connected electronics
- Machine-to-machine communications
- Complementary to FiOS – reach under-served markets
- New home services



- *3GPP Ecosystem represents 80% of the global mobile subscribers today*
- *LTE is the next generation 3GPP technology*
- *LTE will offer the best roaming capabilities, largest vendor ecosystem and best scale economies*

- *A common 4G platform for VZ and VF allows widespread roaming potential*
 - Creates a unique opportunity for VZ and VF to jointly develop new innovative services on a common platform, including: voice connectivity via VoIP

- *4G/3G interworking*
 - Both companies will support Interworking between LTE and their legacy 3G technologies
 - The 3GPP and 3GPP2 standards groups are currently developing specifications to support interworking
 - Both companies will continue to support their legacy 3G technologies for many more years

LTE Devices and Consumer Electronics Ecosystem



- *4G/LTE addresses more than just handsets. A new class of mobile internet-enabled devices are envisioned:*

- Internet tables
- Game consoles
- Ultra-mobile PC's
- Personal movie players
- Music players
- Cameras (pictures, mobile video blogging)
- Navigation devices (e.g., 3-D navigation)

- *Network-enabled consumer devices are expected to grow from tens of millions today to hundreds of millions by 2012*



- *Standards*
 - Ongoing development
 - Publication is expected in 2H'08

- *LTE trials*
 - Radio trials starting in 2008
 - End-to-end field trials phased

- *Initial commercial deployment*
 - 2010-2011 depending upon 4G spectrum, device and marketplace readiness

Backup Slides

VZ Target Converged IMS Architecture



Follow A-IMS/3GPP Rel 8 Functional Grouping

