

CREATING THE LIVING NETWORK™

InterDigital Investor Day 2016

© 2016 InterDigital, Inc. All Rights Reserved.



INTERDIGITAL®

Investor Day Agenda

Introduction

Rich Brezski – CFO

Core Business

- Larry Shay – Senior Executive VP, Future Wireless
- Bob DiFazio – VP, InterDigital Labs

IoT Business

- Jim Nolan – Executive VP, IoT Solutions

External Investments

- Scott McQuilkin – Senior Executive VP, Innovation

Bill Merritt – CEO

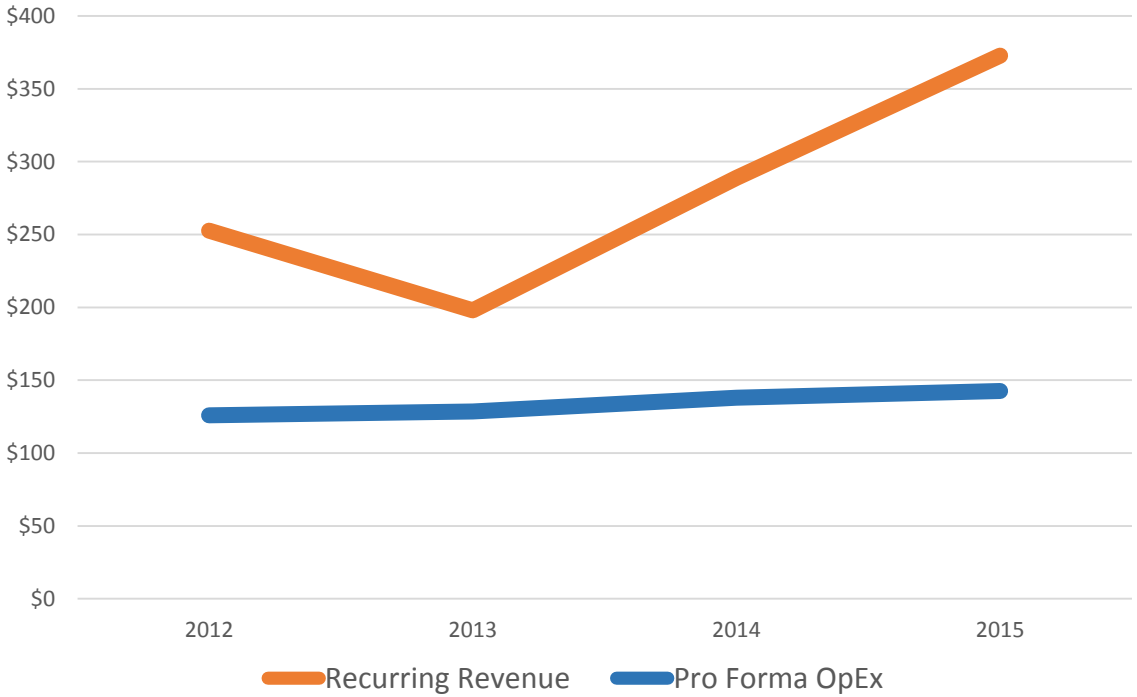
© 2016 InterDigital, Inc. All Rights Reserved.

CREATING THE LIVING NETWORK™

Rich Brezski
CFO

© 2016 InterDigital, Inc. All Rights Reserved.

Growing Recurring Revenues, Careful Expense Control



2016: $178M in recurring revenues through Q2, $258-263M expected through Q3*

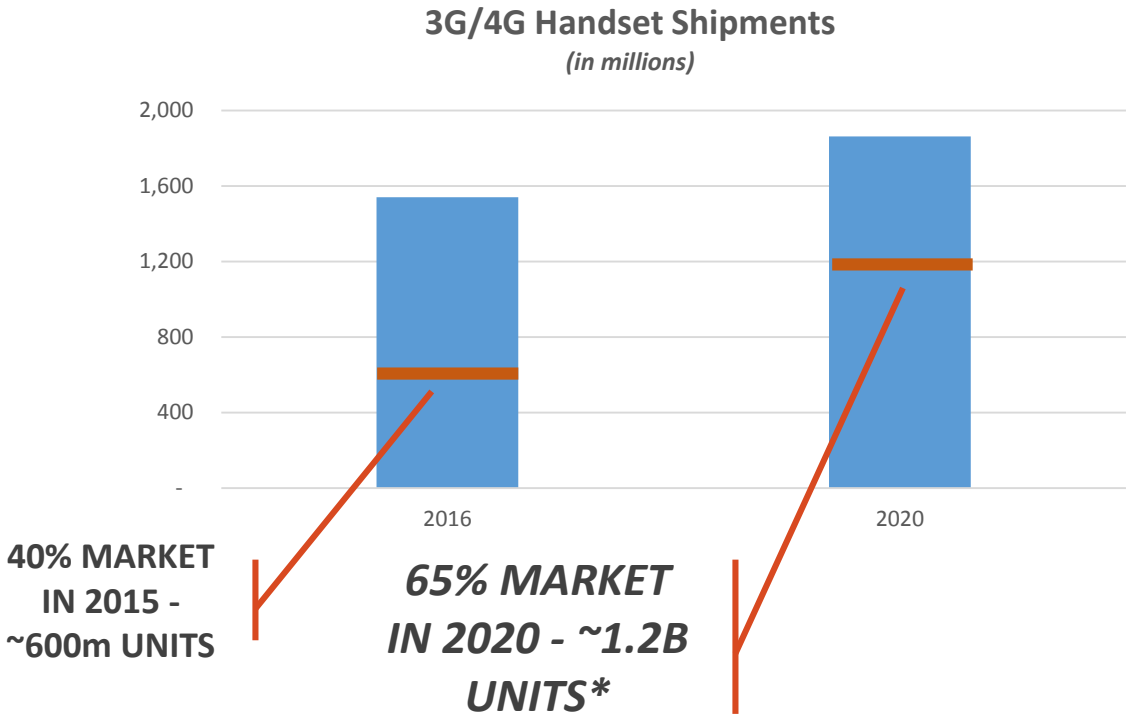
Our track record of increasing revenues while maintaining pro forma operating expense at a relatively flat level highlights the tremendous operating leverage of our business.

Pro forma operating expense is a non-GAAP financial measure that excludes from total operating expense significant items that are non-operational or non-recurring in nature. See Slide 9 for a detailed reconciliation of pro forma operating expense to total operating expense, the most comparable GAAP financial measure.

**Effective as of 9/8/2016, date of Q3 2016 guidance press release.*

© 2016 InterDigital, Inc. All Rights Reserved.

Moderate Penetration – Outsized Gains

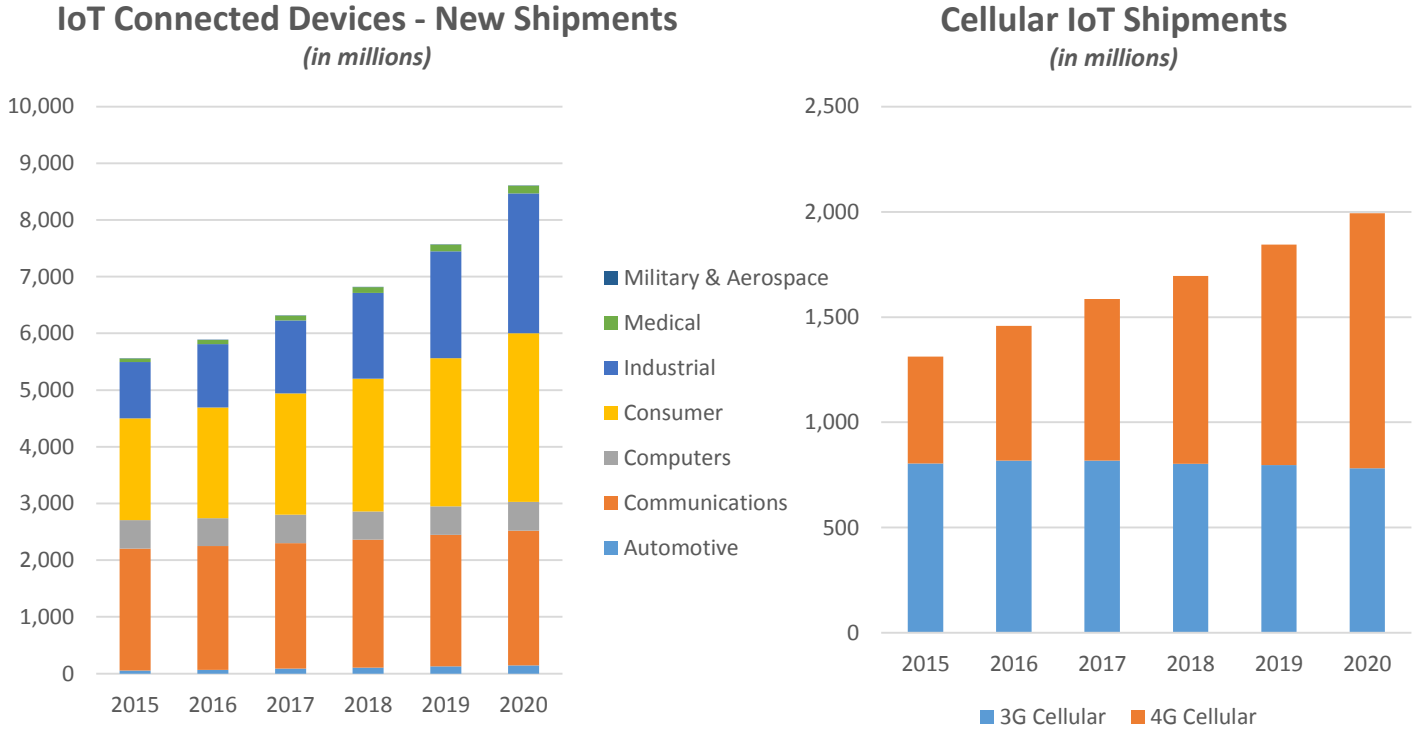


In a market expected to see continued moderate growth, an additional 25% of market penetration would double the number of handsets and terminal units licensed

*Based on IHS Q2 2016 market projections

© 2016 InterDigital, Inc. All Rights Reserved.

New Horizons – New Opportunity

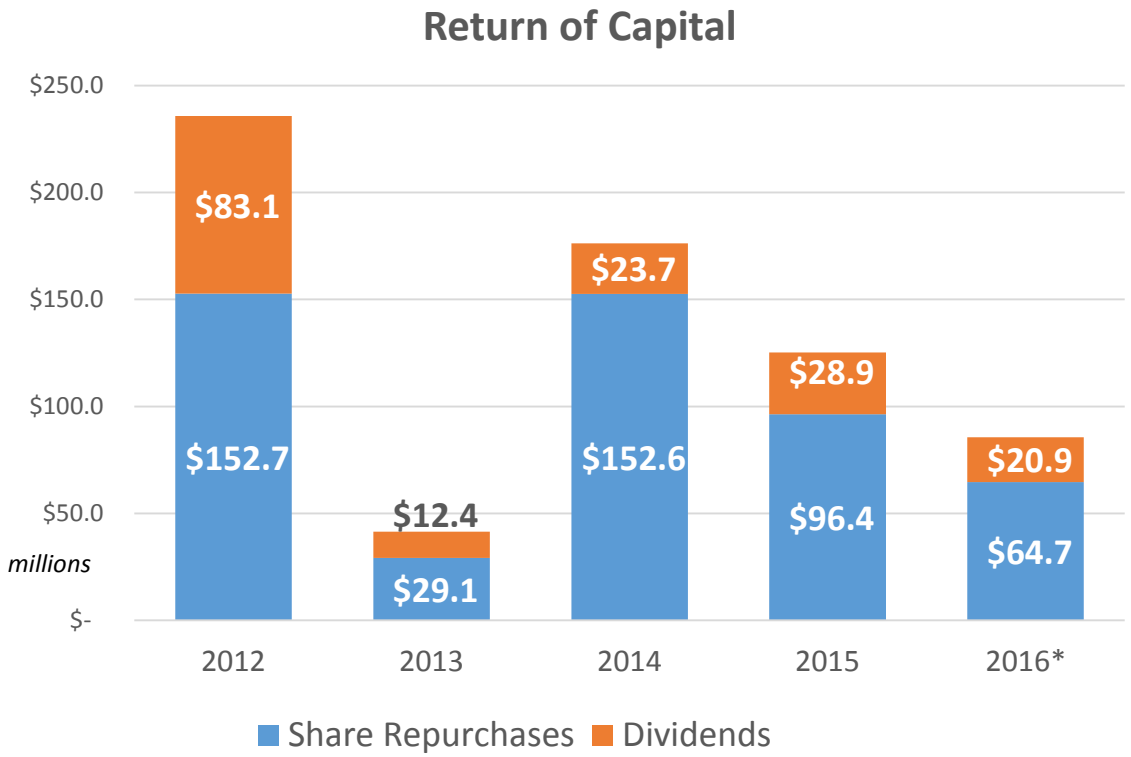


…while additional opportunities beckon… all addressable using our existing portfolio and without incurring meaningful added expense

Source: IHS, July 2016

© 2016 InterDigital, Inc. All Rights Reserved.

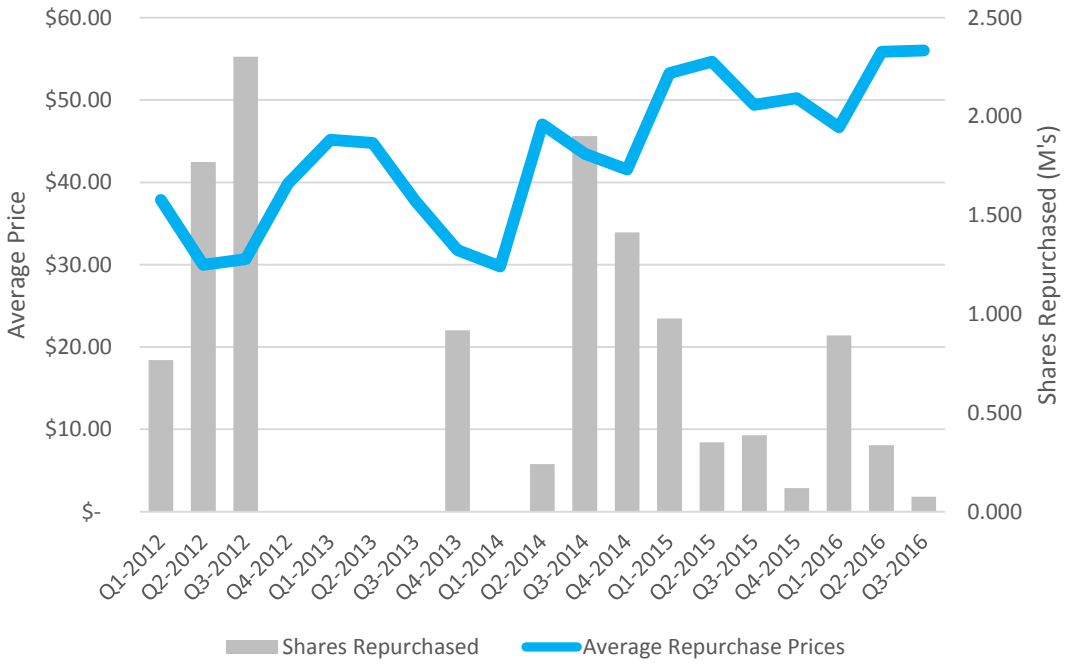
Continued Efforts to Return Value to Shareholders



Since 2012, the company has returned a total of $664.5M in capital to shareholders through a combination of buybacks, regular dividends and a special dividend, with an increase in regular quarterly dividend announced today

© 2016 InterDigital, Inc. All Rights Reserved.

Strong Performance of Our Buyback Program



- Since 2012, we've paid $495.5 million to buy back our own stock
- That "portfolio" would now be valued at just under $1B
- Our program's Buyback ROI, or the IRR of shares bought back as well as the cash savings from associated unpaid dividends, is currently **31%**

© 2016 InterDigital, Inc. All Rights Reserved.

Reconciliation of Pro Forma Operating Expense to Total Operating Expense

	2012	2013	2014	2015
Operating Expenses:				
Patent administration and licensing [1]	$ 126.3	$ 143.1	$ 133.8	$ 120.4
Development [1]	67.9	64.7	75.3	72.7
Selling, general and administrative [1]	37.4	31.3	37.8	39.8
Repositioning	12.5	1.5	-	-
Total Operating Expenses	**$ 244.1**	**$ 240.6**	**$ 246.9**	**$ 232.9**
Intellectual property enforcement and non-patent litigation	(60.7)	(75.6)	(52.3)	(32.7)
Patent amortization	(22.7)	(29.9)	(38.3)	(44.0)
Compensation accrual adjustments [2]	1.9	1.0	(9.8)	(5.4)
Cost of patent sales	(16.7)	-	(0.7)	-
Repositioning	(12.5)	(1.5)	-	-
Other*	(7.5)	(6.0)	(7.9)	(8.1)
Pro forma Operating Expense [3]	**$ 125.9**	**$ 128.6**	**$ 137.9**	**$ 142.7**

** Other adjustments include fringe rate, vacation accrual, R&D refund, bad debt expense, severance associated with structural changes and non-recurring contra expenses.*

NOTE: Sums may not equal total due to rounding

1) Certain reclassifications have been made to prior period amounts to conform to the current period presentation.

2) *"Compensation accrual adjustments"* represents the adjustment that would be necessary in a given period to present the performance compensation actually accrued for that period against the performance compensation as if it had been accrued at 100% of the target performance compensation levels.

3) *"Pro forma operating expenses"* is a supplemental non-GAAP financial measure that InterDigital believes provides relevant and useful information to investors and other users of our financial data in evaluating the effectiveness of our operations and underlying business trends. A limitation of "Pro forma operating expenses" is that it does not represent the total increase or decrease in InterDigital's total operating expenses for the period. "Pro forma operating expenses" excludes from total operating expense significant items that are non-operational or non-recurring in nature, including "Compensation accrual adjustments" (see Footnote 2). InterDigital's computation of "Pro forma operating expenses" might not be comparable to the "Pro forma operating expenses" reported by other companies. The presentation of this financial information, which is not prepared under any comprehensive set of accounting rules or principles, is not intended to be considered in isolation or as a substitute for the financial information prepared and presented in accordance with generally accepted accounting principles ("GAAP"). A detailed reconciliation of "Pro forma operating expenses" to total operating expenses, the most directly comparable GAAP financial measure, is provided above.

© 2016 InterDigital, Inc. All Rights Reserved.

Thank You!



© 2016 InterDigital, Inc. All Rights Reserved.



InterDigital Future Wireless Business Unit

Patent Licensing and Research and Development

Larry Shay



© 2016 InterDigital, Inc. All Rights Reserved.

INTERDIGITAL

Patent Licensing



© 2016 InterDigital, Inc. All Rights Reserved.



One Portfolio, Driving Two Market Opportunities

CONSUMER DEVICES



CONNECTED THINGS



© 2016 InterDigital, Inc. All Rights Reserved.

New Licensees Added to a Strong Base, with Opportunities that Remain

NEW AND RENEWED LICENSES…

SHARP KYOCERA NEC

SOME INCLUDING RESEARCH COLLABORATION…

HUAWEI SONY

…AND AN EXCITING PLATFORM FOR NEW MARKETS

AVANCI

LAYERED ONTO A STRONG EXISTING BASE

acer ASUS BlackBerry gemalto security to be free ERICSSON FUJITSU htc Panasonic ideas for life

PEGATRON Quanta SAMSUNG SIERRA WIRELESS teltronic ublox TOSHIBA wistron

All third party trademarks, service marks and/or tradenames used herein are the property of their respective owners.

© 2016 InterDigital, Inc. All Rights Reserved.

Avanci Patent Licensing Platform

- Avanci – separate entity formed to aggregate 2G/3G/4G standard essential patents for IoT connectivity patent licensing programs
- Initial licensing programs: manufacturers of vehicles and smart meters
- Announced initial licensors: InterDigital, Ericsson, Qualcomm, KPN and ZTE
- Avanci royalties to be priced on a flat-rate basis and vary depending on the value the technology brings to the device

© 2016 InterDigital, Inc. All Rights Reserved.

Avanci Benefits to InterDigital

- Avanci initial licensing programs seek to license some end-user products that are **not addressed** by InterDigital's current licensing activities
- **Recognition of InterDigital's contributions** to wireless industry, and provides an opportunity to receive a fair return on our wireless investment for the end-user markets covered by the Avanci initial licensing programs
- Potential incremental revenue source in **high-growth IoT verticals**
- **Minimal incremental resources** to support license discussions

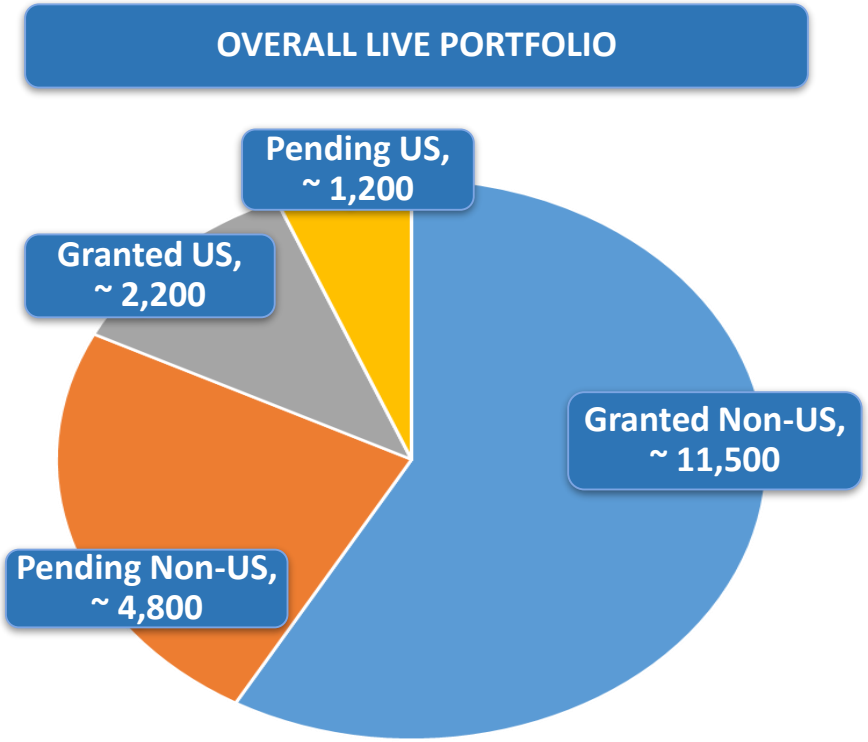
© 2016 InterDigital, Inc. All Rights Reserved.

Portfolio at a Glance*

~20,000 Patents and Applications Worldwide

- **US:** approx. 2,200 issued patents, approx. 1,200 pending applications
- **NON-US:** approx. 11,500 issued patents, approx. 4,800 pending applications

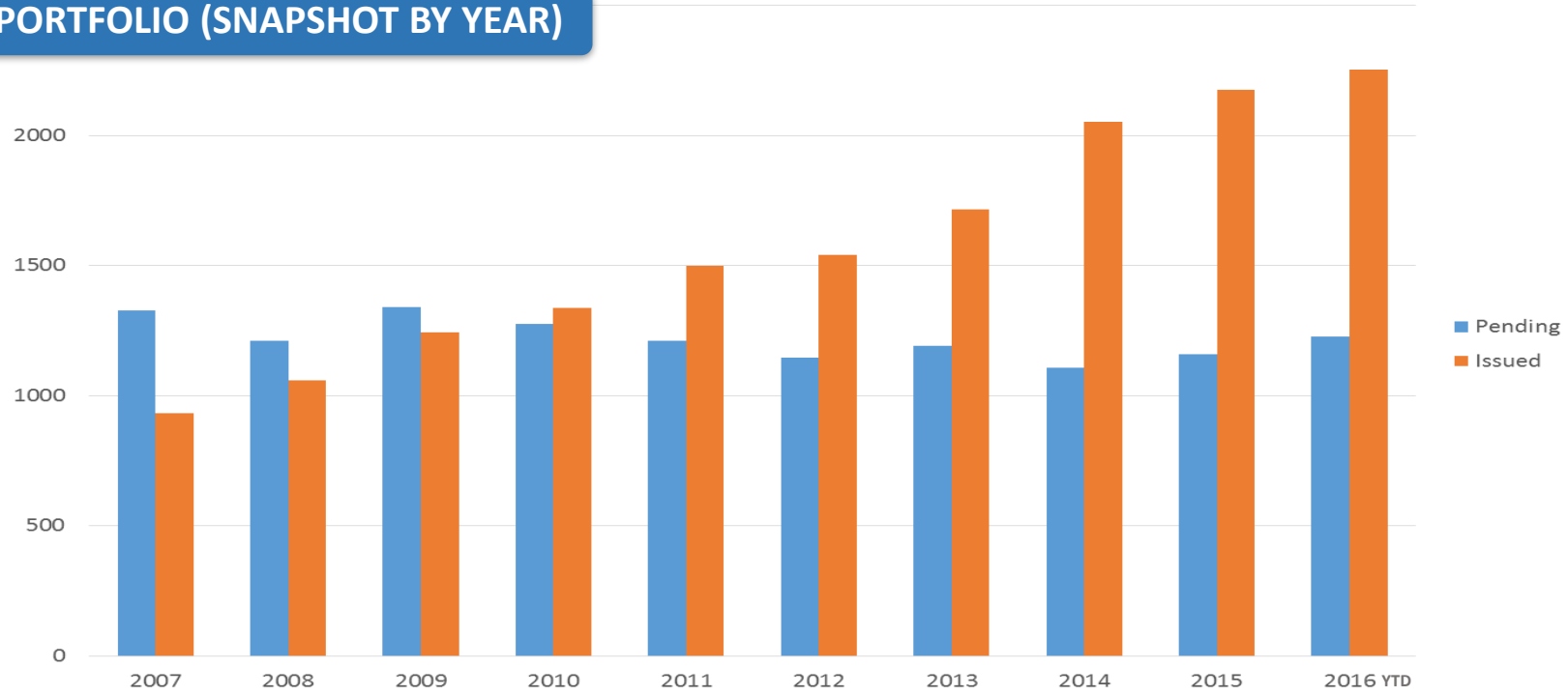
**All patent-related numbers in presentation are as of September 13, 2016 except as noted otherwise*



© 2016 InterDigital, Inc. All Rights Reserved.

Maintaining a Robust U.S. Portfolio

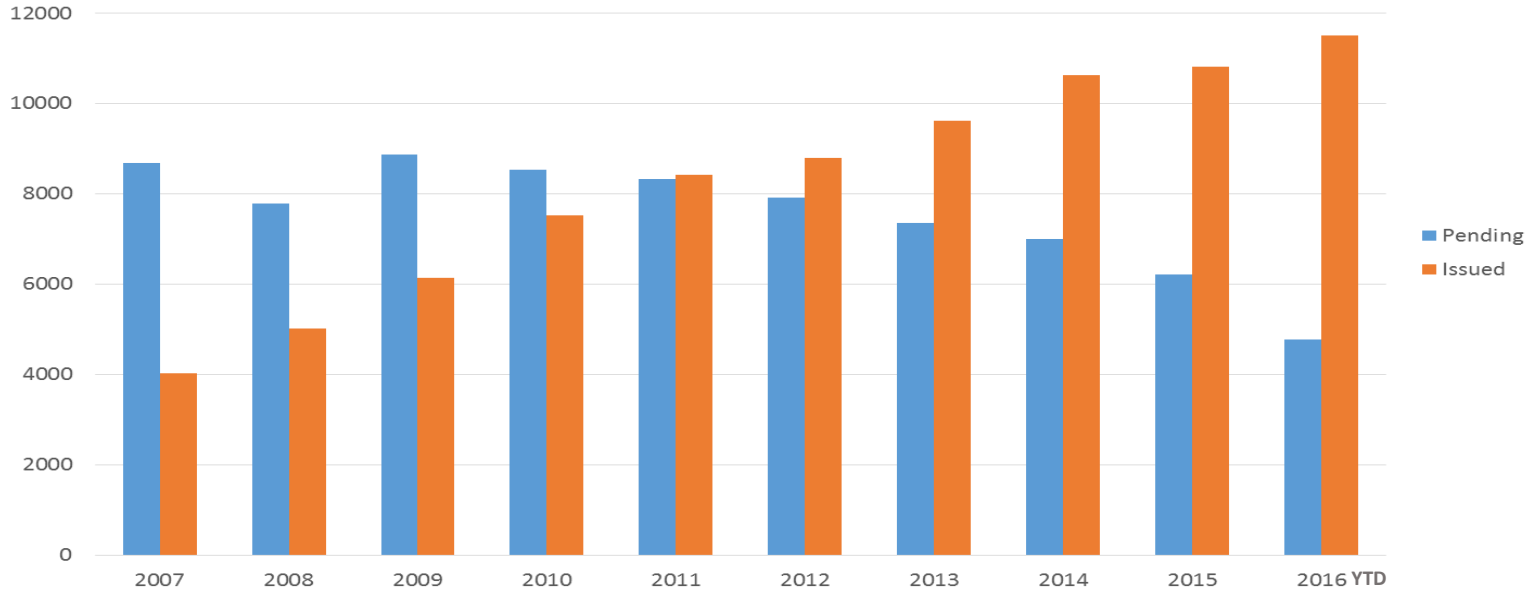
US PORTFOLIO (SNAPSHOT BY YEAR)



© 2016 InterDigital, Inc. All Rights Reserved.

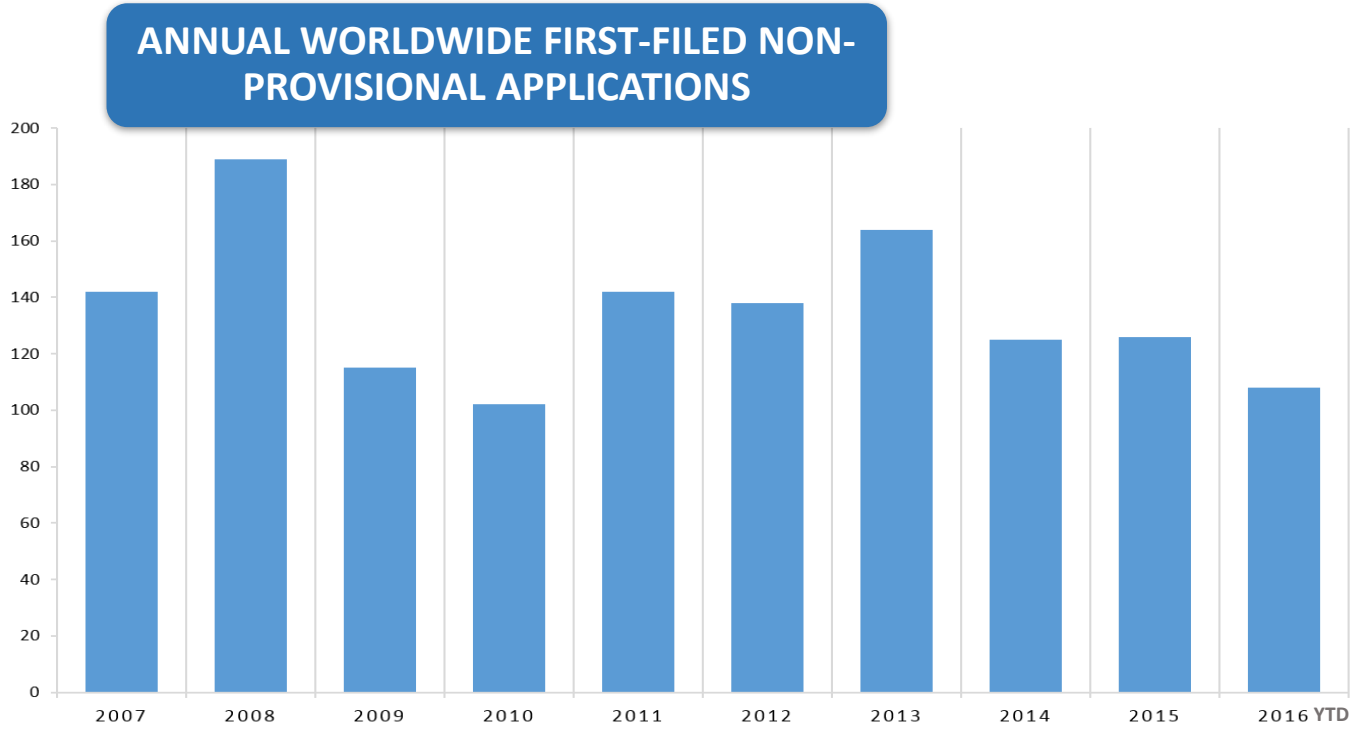
Maintaining a Robust International Portfolio

NON-US PORTFOLIO (SNAPSHOT BY YEAR)



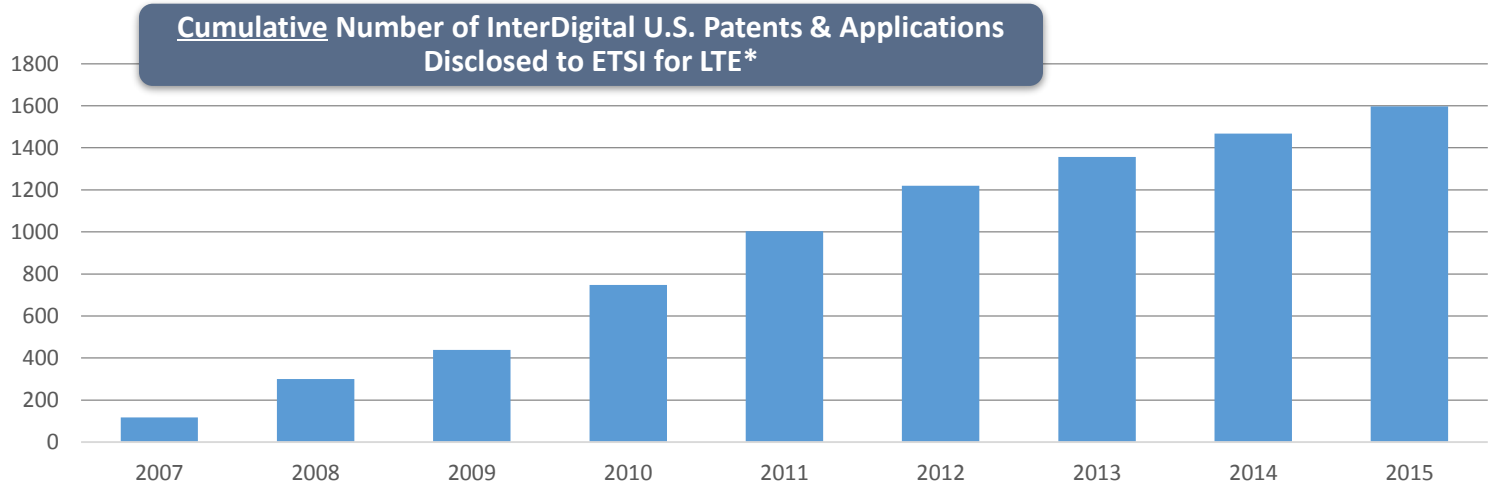
© 2016 InterDigital, Inc. All Rights Reserved.

Continued Strength in Innovation



© 2016 InterDigital, Inc. All Rights Reserved.

LTE: a Growing Presence in a Key Technology



* The data in the table reflects the U.S. (i) patents, (ii) non-provisional patent applications and (iii) provisional patent applications disclosed, or deemed to have been disclosed, to the European Telecommunications Standards Institute ("ETSI") for the LTE project, as applicable, through September 13, 2016 by InterDigital's patent holding subsidiaries.

1. Data above has been adjusted to reflect withdrawals of, and corrections made to, declarations of patents and applications.
2. Certain of the patent and application data provided above by InterDigital may not correlate to the data available on the ETSI IPR Database as a result of differences in compiling, organizing and displaying declaration data. In addition, the patent and application data provided above may not be comparable to similar data provided by other third parties due to, among other things, differences in ETSI database search methodologies and applicable time periods.
3. The data in the table above may include patents and applications that are directed to technology that is not, or may never be, deployed.
4. InterDigital's presentation of this data is not a statement of the essentiality of the patents and applications referred to herein, nor is this data a substitute for an independent evaluation of essentiality.

Ongoing Leadership in Key Technologies



- 3G: InterDigital accounted for approximately 10% of the patents and patent applications judged likely to be essential to WCDMA – the third-highest share out of more than 40 companies (May 2015)
- 4G: InterDigital accounted for approximately 10% of the patents and applications judged likely to be essential to LTE – fourth-highest share of nearly 100 companies (April 2016)

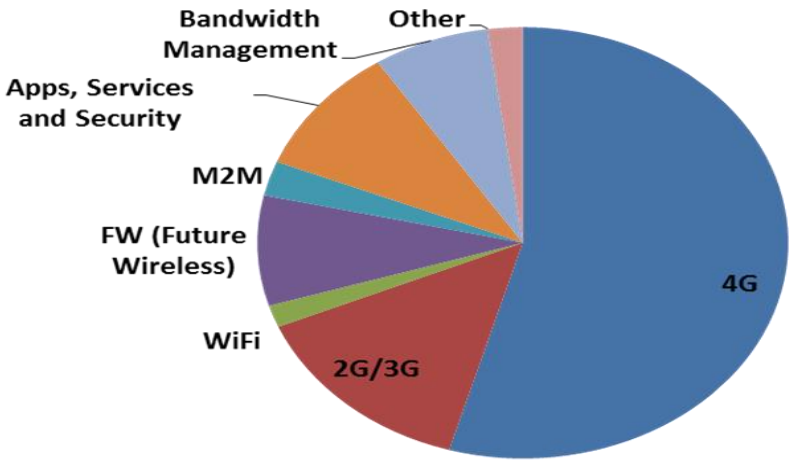
LexInnova
REINVENTING LITIGATION SOLUTIONS

- IoT: InterDigital in top 10 of global companies in terms of IoT patent landscape, ahead of Microsoft and IBM
- Fourth in “high-strength IoT patents” ahead of Intel and Ericsson (May 2016)

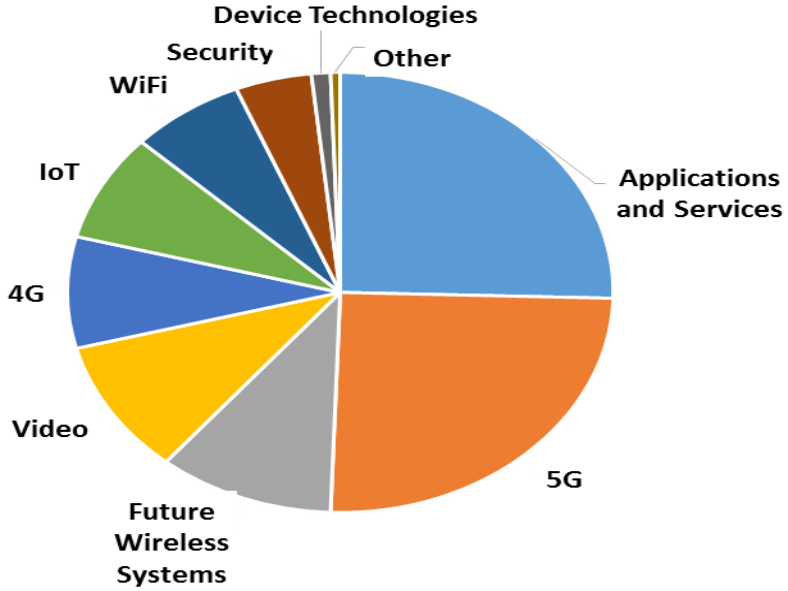
InterDigital does not endorse any third-party analysis in relation to technology areas, but believes these studies may provide independent confirmation of the strength of the company’s R&D activities in mobile communication.

InterDigital Labs: Responding to Market Need

2009: Expanding the 4G presence



2016*: A Diversified Approach to 4G, 5G and Future Growth Drivers of Apps & Services, Video and IoT



Charts show invention activity within InterDigital R&D focus areas for each respective year and include activities that have resulted in some patent applications.

** Reflects data through 31-Aug-2016*

© 2016 InterDigital, Inc. All Rights Reserved.

Research and Development

Bob DiFazio



© 2016 InterDigital, Inc. All Rights Reserved.

INTERDIGITAL

5G is an opportunity

… for new wireless services, new business models, and new businesses

… for significant technology innovation at the leading edge of a ten-year cycle

This plays into InterDigital's strength with a world class engineering staff and track record in international wireless standards that rivals many larger companies

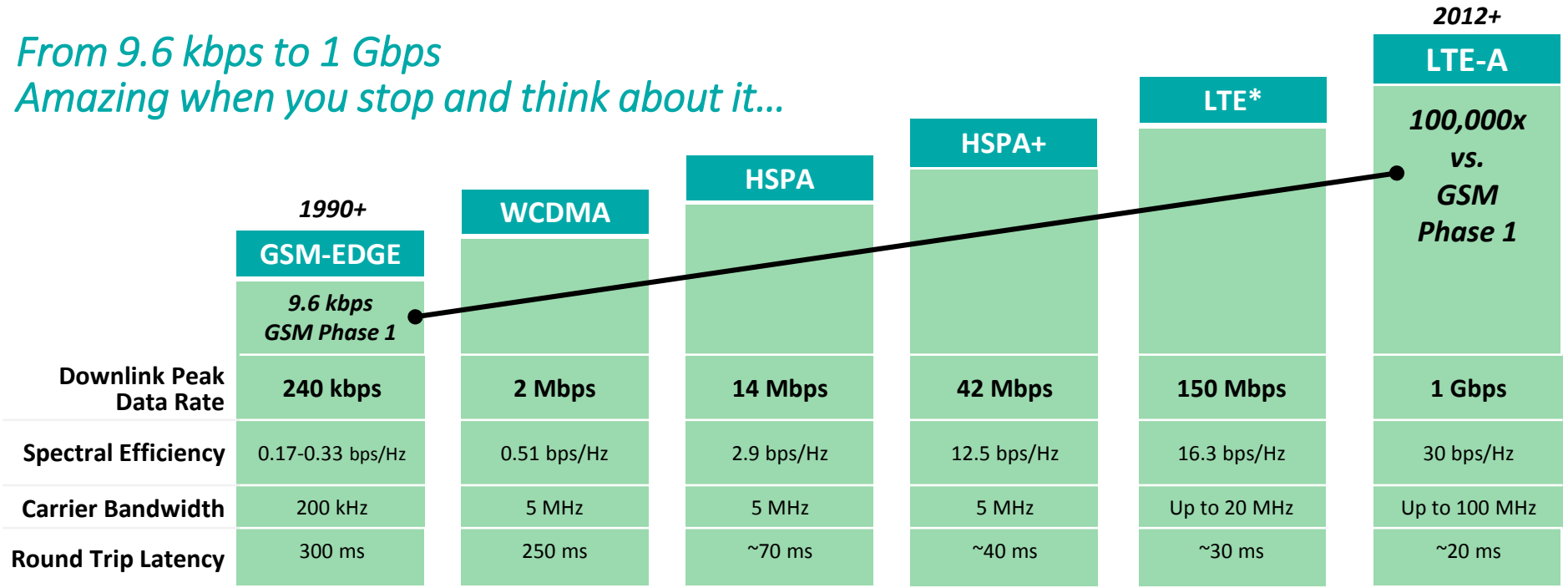


© 2016 InterDigital, Inc. All rights reserved.

InterDigital – Present Since the Early Days of Digital Cellular

2G Narrowband Era | **3G** Broadband Era (for the few) | **4G** (for the masses)

From 9.6 kbps to 1 Gbps
Amazing when you stop and think about it…



© 2016 InterDigital, Inc. All rights reserved.

Outdoor & Indoor Use Cases Drive the Need for 5G

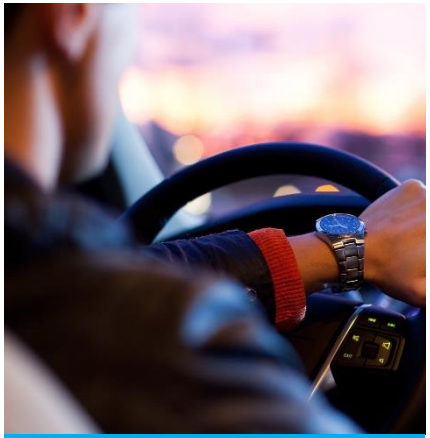
High Traffic Volume, Low Latency, Massive Connectivity – Required by all but vary by use case



SHOPPING MALL



DENSE URBAN INFO SOCIETY



REALTIME REMOTE COMPUTING



OPEN AIR FESTIVAL

Internet of Things (IoT)

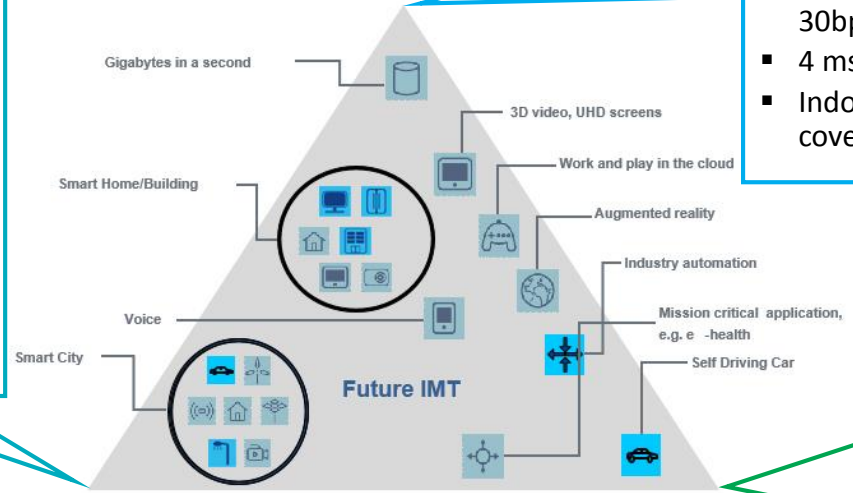
© 2016 InterDigital, Inc. All rights reserved.

5G Use Cases and Key Requirements Overview

Key challenge for 5G design: support for different services having diverging requirements

Massive Machine Type Communications (mMTC)

- Low data rates (1 to 100 kbps)
- High device density (up to 1,000,000/km^2)
- Latency: seconds to hours
- Low power: up to 15 years battery life



Source: ITU-R SG5 WP-5D

Enhanced Mobile Broadband (eMBB)

- Peak data rates: 20 Gbps (DL) and 10 Gbps (UL)
- Peak spectral efficiency: 30bps/Hz (DL) and 15bps/Hz (UL)
- 4 ms user plane latency
- Indoor/hotspot and enhanced wide-area coverage

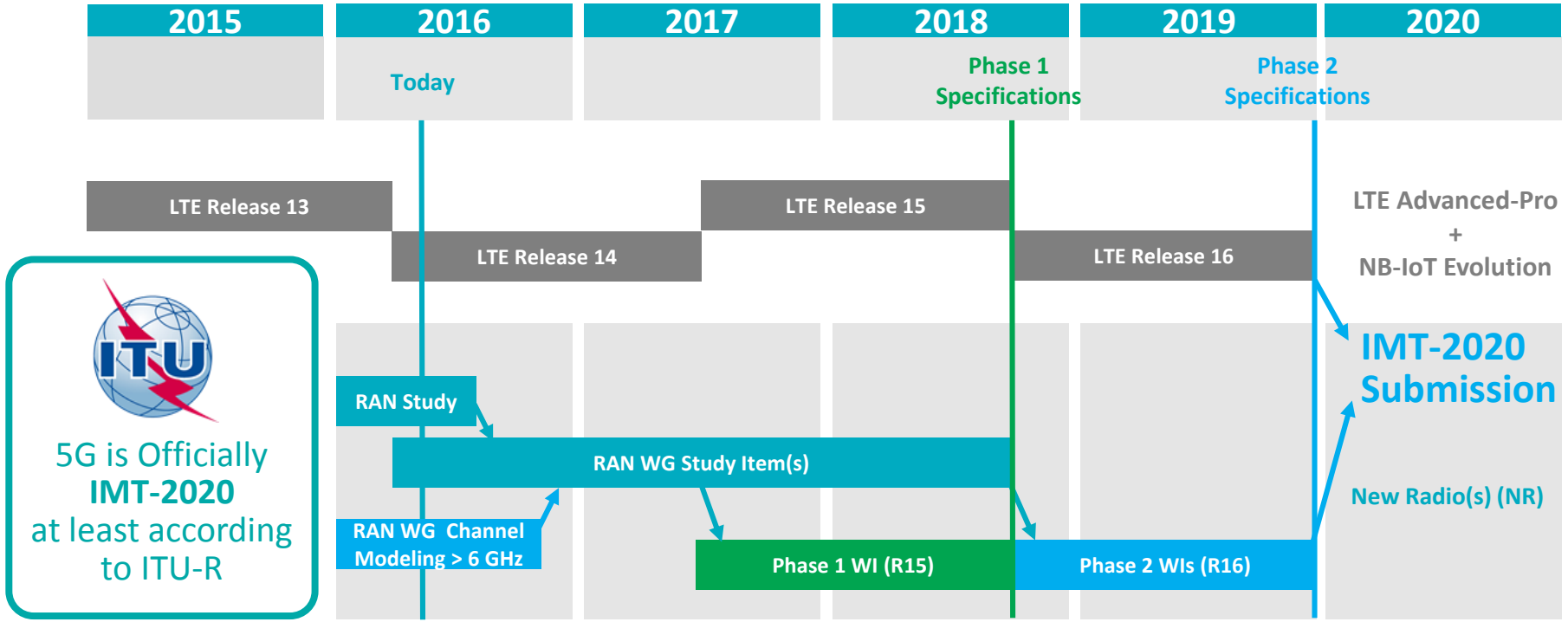
Ultra-Reliable and Low Latency Communications (URLLC)

- Low to medium data rates (50 kbps to 10 Mbps)
- 0.5 ms user plane latency
- 99.999% reliability and availability within 1 ms
- High mobility

© 2016 InterDigital, Inc. All rights reserved.

3GPP RAN Standardization Timeline

Phased approach enables early deployment of Phase 1 in 2020 and Phase 2 in 2022+

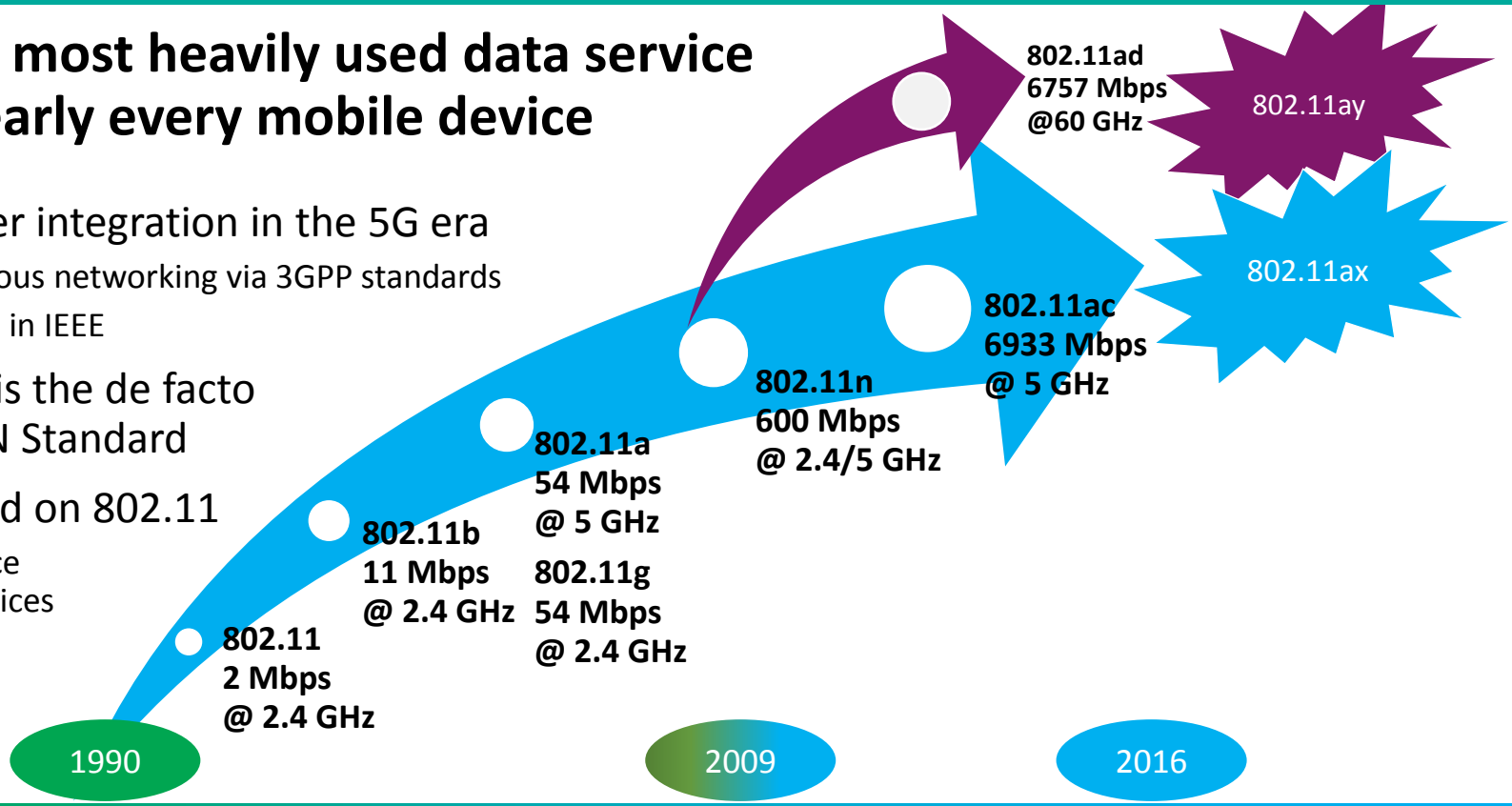


© 2016 InterDigital, Inc. All rights reserved.

Wi-Fi Timeline: A Key Component of 5G

Wi-Fi is the most heavily used data service and is in nearly every mobile device

- Expect tighter integration in the 5G era
  - Heterogeneous networking via 3GPP standards
  - 5G activities in IEEE
- IEEE 802.11 is the de facto Wireless LAN Standard
- Wi-Fi is based on 802.11
  - Wi-Fi Alliance certifies devices



© 2016 InterDigital, Inc. All rights reserved.

5G Timeline: Early Commercial Trials and Rollouts

Looking back at what happened with 4G, will early rollouts be 5G or 4.75G?

Verizon forms the Verizon 5G Technical Forum (V5GTF) in 2015

- Creating platform for Verizon's 28/39 GHz fixed wireless access trials and deployments
- Testing mmW equipment with Cisco, Ericsson, Nokia, Samsung, …
- Announced completion of Verizon 5G Specifications in July 2016

AT&T

- Conducting 5G trials with the intent to "pivot to compliant commercial deployments once 5G technology standards are set"
- Trialing mmW technology at 15 GHz and 28 GHz in Austin, Texas with Ericsson and Intel

Bell Canada trials 5G with Nokia

- Demonstrated 6x data speeds compared to 4G in 73 GHz band

2018 Pyeongchang Winter Olympics, South Korea

- Ministry of Science, ICT & Future Planning, KT, SKT, …
- Demo broadcasting equipment, holograms, virtual reality, safety drones, …
- Projecting: 16,000 smartphones, 13,000 PCs, 3,500 WiFi spots and 1,500 tablet PCs

2018 FIFA World Cup, Russia

- MTS and Ericsson team up to demonstrate 5G
- Huawei also planning 5G demonstrations/trials

2020 Tokyo Summer Olympics, Japan

- Ongoing trials: Fujitsu (4.65 GHz), Huawei (6 GHz), Ericsson (15 GHz), Nokia networks, test equipment vendors, …
- Ministry of Internal Affairs and Communications Commercialization plan with NTT Docomo, KDDI, Sony, Sharp, …

© 2016 InterDigital, Inc. All rights reserved.

Thank You!



© 2016 InterDigital, Inc. All Rights Reserved.

INTERDIGITAL



InterDigital's IoT Solutions

Jim Nolan

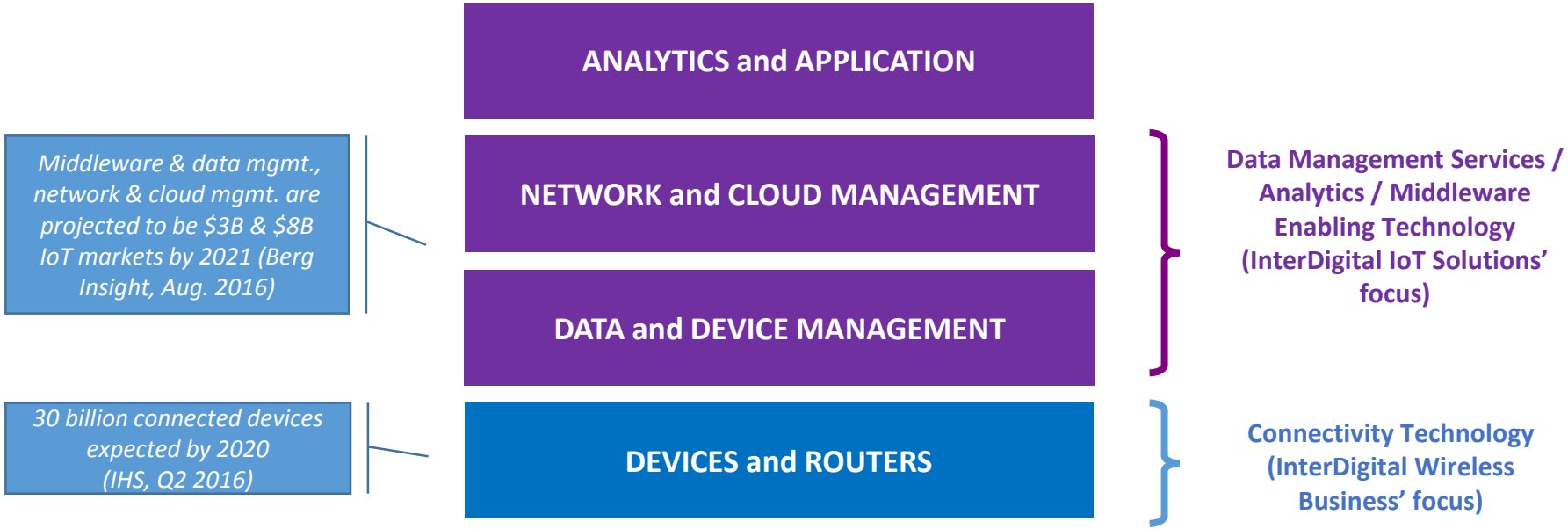
© 2016 InterDigital, Inc. All Rights Reserved.

INTERDIGITAL

Where We Play in the IoT Ecosystem

INTERDIGITAL IoT SOLUTIONS

IoT Connectivity and IoT SW & Services

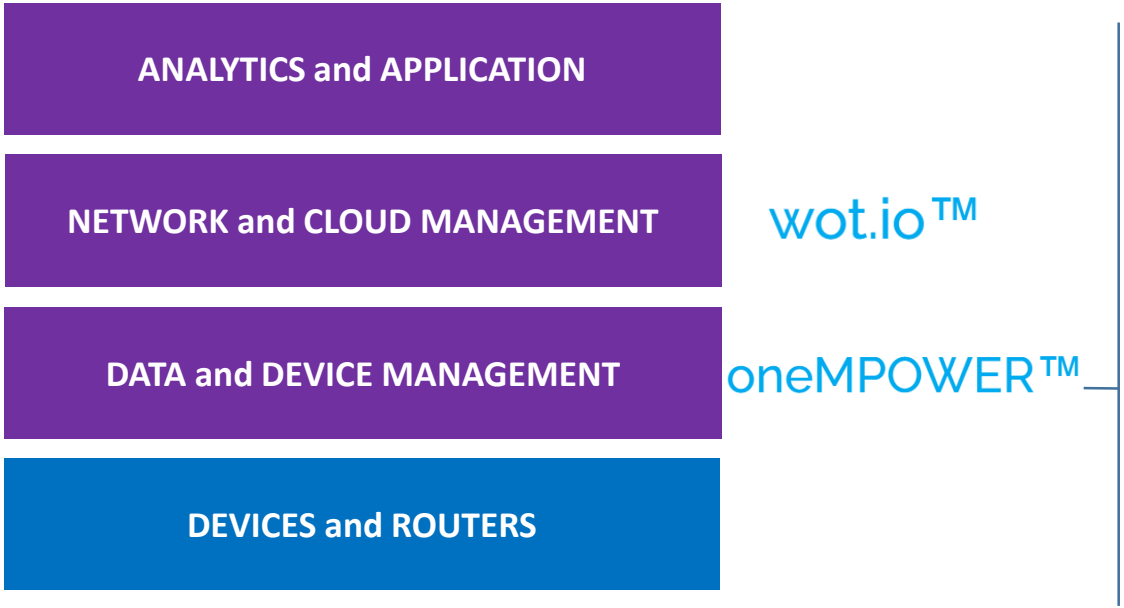


© 2016 InterDigital, Inc. All Rights Reserved.

Where We Play in the IoT Ecosystem

INTERDIGITAL IoT SOLUTIONS

IoT Connectivity and IoT SW & Services



oneMPOWER™ - a oneM2M standards-based IoT services platform

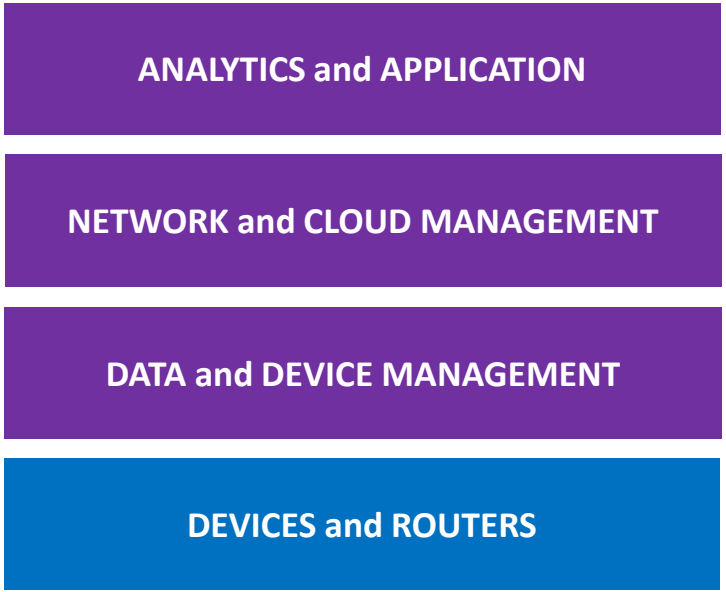
- Future-proofs deployments
- SW in sensors, devices, gateways and servers
- Interworks with many other standards (AllJoyn, OIC – now OCF, …)
- Device & service discovery, data management, interworking
- LWM2M device management

© 2016 InterDigital, Inc. All Rights Reserved.

Where We Play in the IoT Ecosystem

INTERDIGITAL IoT SOLUTIONS

IoT Connectivity and IoT SW & Services



Unique IoT operating environment that:

- Enables public/private cloud as-a-service solutions
- Easy/rapid integration of 3rd party value added sources
- Agile – rapid time to market …through extensive adaptor framework (>100) that accelerate building IoT Solutions
- Enables new business models – data brokerage, analytics, etc.

© 2016 InterDigital, Inc. All Rights Reserved.

Why InterDigital IoT Solutions?

INTERDIGITAL IoT SOLUTIONS

Standards-based solutions enable: **global scale**, **reuse** across market segments, **lower cost** of development and future-proof deployments.

oneMPOWER™ is the **first** and **only** complete **standards-compliant platform** in the market.



The ONLY complete standards-compliant platform

Most IoT companies provide only a few HW or SW ingredients for individual market segments.

InterDigital is focused on **enabling** its customers for success by providing **comprehensive** and **scalable platform solutions** across multiple market segments.



A TRUE partner in our customers' success

Many IoT companies are either unproven startups or are only marginally profitable.

InterDigital has the **stability** and **financial strength** to be a **long-term partner**, with the means to invest in serving the most transformative market in the world.



Significant strength and stability

© 2016 InterDigital, Inc. All Rights Reserved.

OFFERING IOT PLATFORMS THAT ARE EXTENSIBLE ACROSS MULTIPLE VERTICALS

TARGETING SMART CITIES, TRANSPORTATION, INDUSTRIAL/ENTERPRISE AUTOMATION…

Smart Cities

Data and device management, storage, and predictive analytics

Enables innovative smart city applications that include infrastructure, air quality, moisture, and water quality monitoring

Smart Buildings

Data and device management, storage, predictive analytics, multi-vendor sensors and controls

Provides efficient commercial real estate management

Transportation

Data aggregation, storage, analytics, and brokering

Offers a transport data marketplace for innovative application development



**All third party trademarks, service marks and/or tradenames are the property of their respective owners*

Industrial

Data and device management, storage, industrial environment monitoring and 3D visualization

Facilitates cost-effective predictive and preventative maintenance for multiple industries

Enterprise

Data and device management, storage, analytics, integration with enterprise tools and environments

Integrates IoT with Enterprise systems, CRM, ERP, etc.

INTERDIGITAL IoT SOLUTIONS

© 2016 InterDigital, Inc. All Rights Reserved.

INTERDIGITAL

A Transportation Solution



INTERDIGITAL
IoT SOLUTIONS

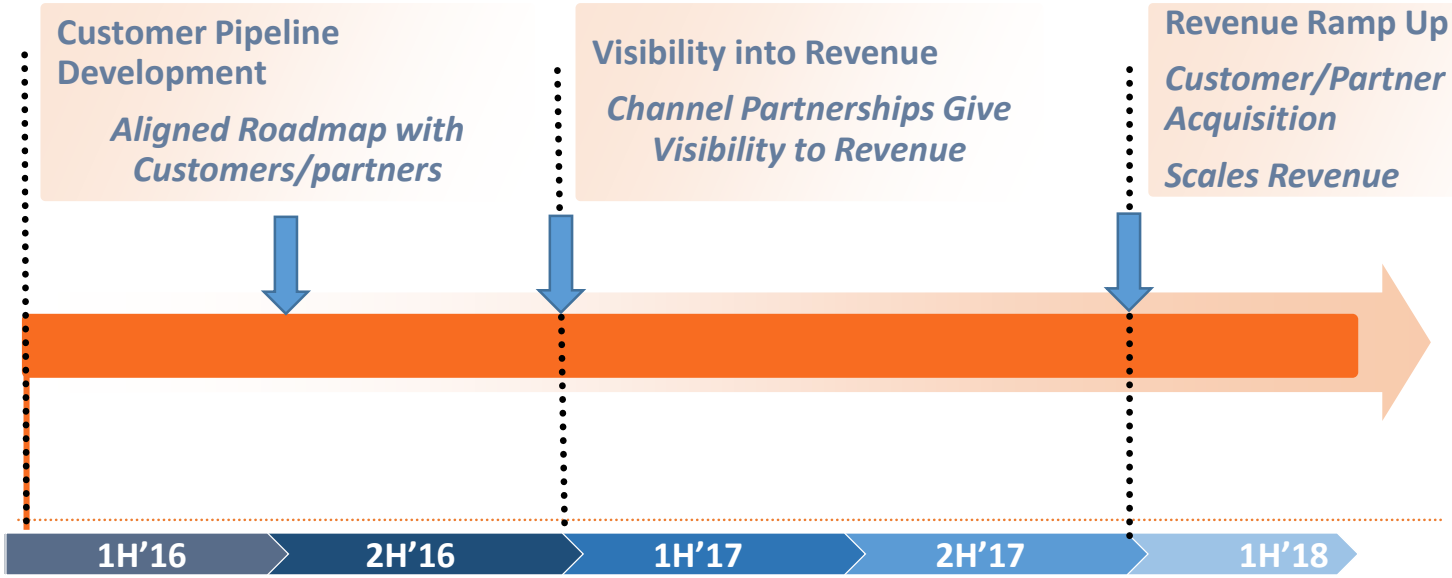
oneTRANSPORT

- Unique “Data Service Broker” business model enabled by oneMPOWER™ and powered by wot.io™
- Reduces capital expenditures and provides quality-of-life improvements for local, regional, and national government agencies

© 2016 InterDigital, Inc. All Rights Reserved.

IoT Solutions Key Milestones & Signposts

INTERDIGITAL
IoT SOLUTIONS



© 2016 InterDigital, Inc. All Rights Reserved.
INTERDIGITAL

Award-winning IoT Solutions

INTERDIGITAL
IoT SOLUTIONS

2015 ABI Research Hot Tech Innovator

2016 Global IoT Platform Competitive Strategy Innovation & Leadership

2015 IoT Nexus Power Players and Innovators

Best IoT Product at ARM TechCon 2014

2016 MarketsandMarkets Key Innovator

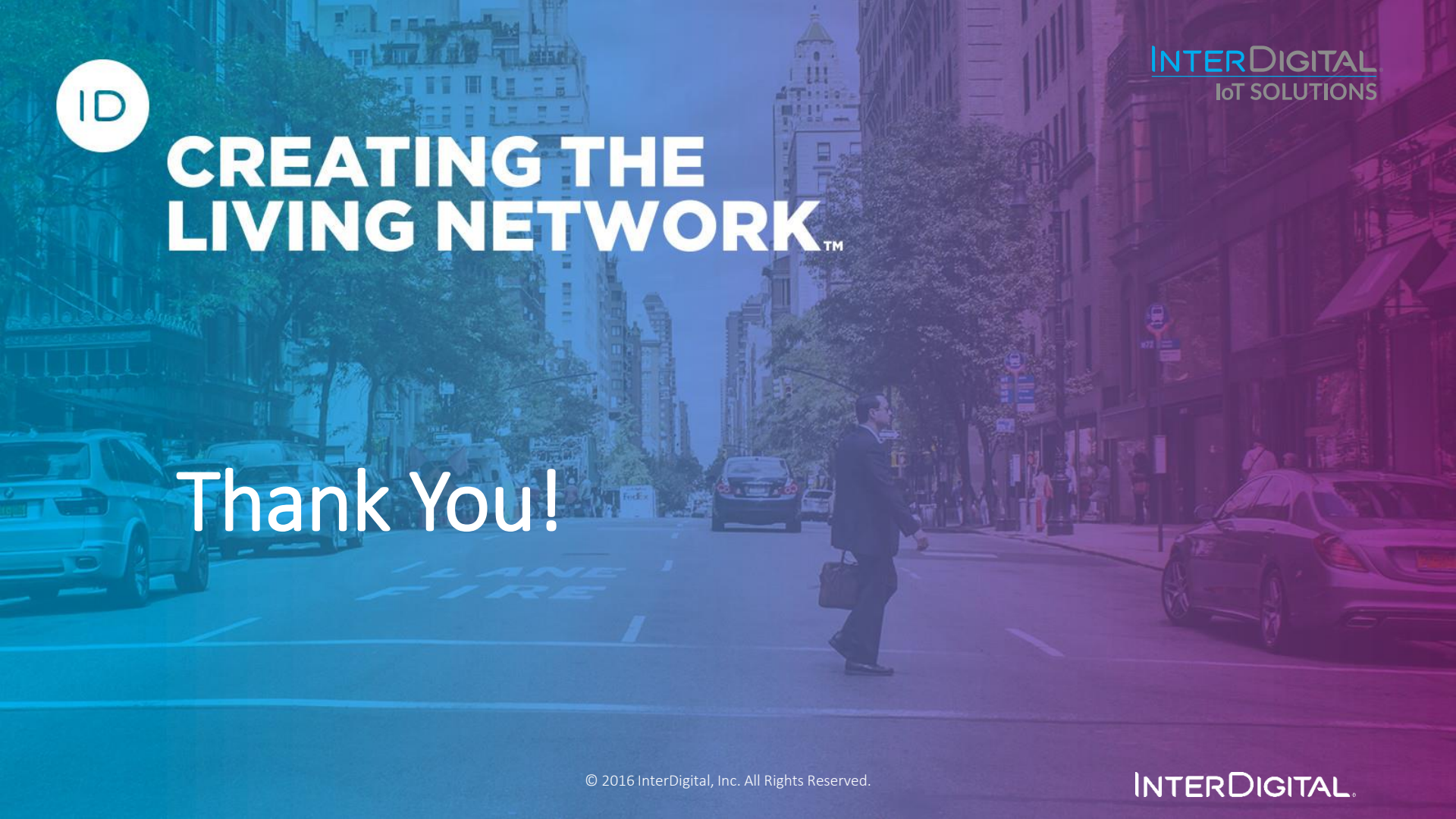
…and yesterday

Shortlist – 2016 World Communication Awards

Smart Cities Award

*All third party trademarks, service marks and/or tradenames are the property of their respective owners

© 2016 InterDigital, Inc. All Rights Reserved.


ID
CREATING THE LIVING NETWORK™
INTERDIGITAL
IoT SOLUTIONS
Thank You!
© 2016 InterDigital, Inc. All Rights Reserved.
INTERDIGITAL



CREATING THE LIVING NETWORK™

External Investment Activities

Scott McQuilkin

© 2016 InterDigital, Inc. All rights reserved.

INTERDIGITAL

Investments Support The Core Business

- External investments *drive core business value* by *leveraging and expanding* our innovation capabilities and creating new market opportunities
- Focusing on mobile devices, next-gen wireless networks, video over wireless, and IoT – areas that…
  - Are valuable to our existing customers
  - *Leverage* our scale and experience in technology and licensing
  - *Expand* our business by creating opportunities in adjacent markets

Investment initiatives that are aligned with our overall strategy and work synergistically with each other

Innovation Partners	Commercial startups
Venture investments	Acquisitions

Primary focus: *external*

New (but related) markets and tech	New models for innovation
New market and customer engagement opportunities	New talent pools: technical, domain, functional

Innovation Partners: Expanding Our Reach

- Small, dedicated internal team
- Single purpose: Drive core business value through external innovation
- Building curated network of prolific inventors, research labs, universities
- Focus to date has been on developing new technical capabilities
- Highly active, highly selective process for identifying, engaging and managing innovators
- Clearly defined objectives and metrics
- Low cost, low risk, pay for performance financial model



Prolific Inventors, with Substantial Expertise

- Deep expertise in a specific technology
- Exclusive inventing in defined fields
- US, Europe, Asia
- Track record of 100 to >600 invention disclosures in patent applications
- PhDs with major university affiliations
- Backgrounds at major industry players like Nokia, Ericsson, Microsoft, HP…
- Start-up experience



Harnessing Capabilities of Elite Research Labs



VTT Technical Research Centre of Finland



Institute of Human Machine Cognition - Florida





IMA/ZLW/IFU Lab - Germany



SouthWest Research Institute - Texas

InterDigital's Venture Fund: NexStar Partners

NEXSTAR PARTNERS

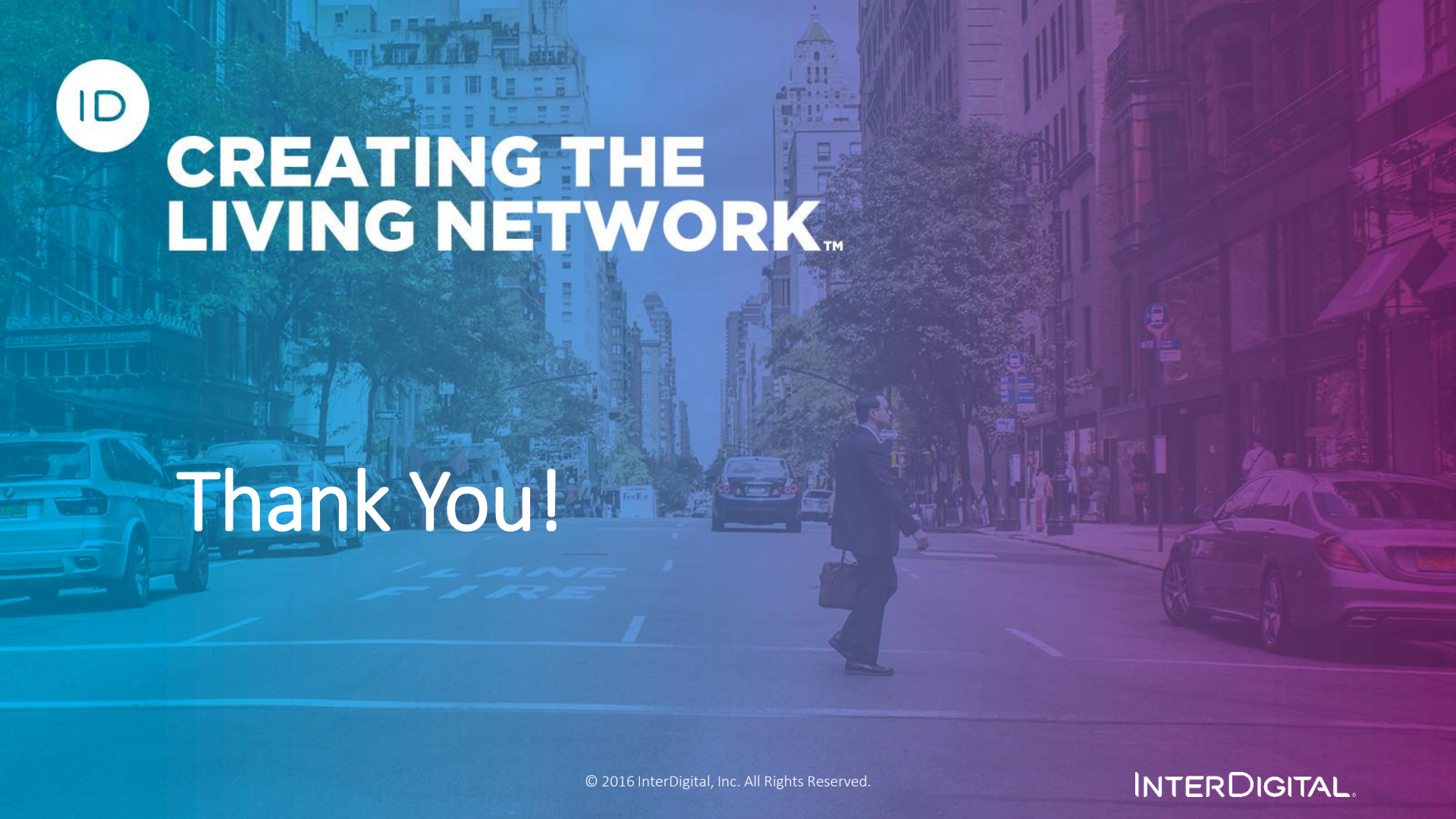
- **Strategically aligned:** Technology and market scope of investments is aligned with InterDigital's technology and market interests
- **Financially motivated:** Structured and managed to make money through successful venture investing; led by experienced VC professional
- **Broadens our scope:** NexStar expands our capabilities as a technology innovator
- **Based on expertise:** Leverages our knowledge in wireless technology, standards and IPR
- **Targeted investments:** Generally $2-$5 M per round; max $10 M in any one company

Commercial Startups: XCellAir™



- Early-stage company with a cloud-based SaaS business model that enables operators to provision, monitor and optimize carrier managed Wi-Fi networks
- Target customer is cable operators like Comcast, Charter/TWC, Cablevision/Altice, Videotron, Liberty Global, as well as “converged operators” like Verizon, AT&T, Telus
- Value proposition: reduce churn, reduce cost, enable premium services
- 18 employees; technical team migrated from InterDigital; business team from recruited from outside company
- Structured and managed as a stand-alone start-up venture

INCREASING HOME WI-FI NEEDS AND COMPLEXITY	**~70% OF CUSTOMER SERVICE CALLS RELATED TO WI-FI**	**MSOs HAVE LIMITED VISIBILITY INTO HOME-BASED WI-FI TO SOLVE PROBLEMS**	**XCellAir: A HARDWARE-INDEPENDENT, MULTI-VENDOR SOLUTION**



© 2016 InterDigital, Inc. All Rights Reserved.

INTERDIGITAL



© 2016 InterDigital, Inc. All Rights Reserved.

INTERDIGITAL

We Proved that a New, Simple, Innovative Business Could Create Tremendous Value



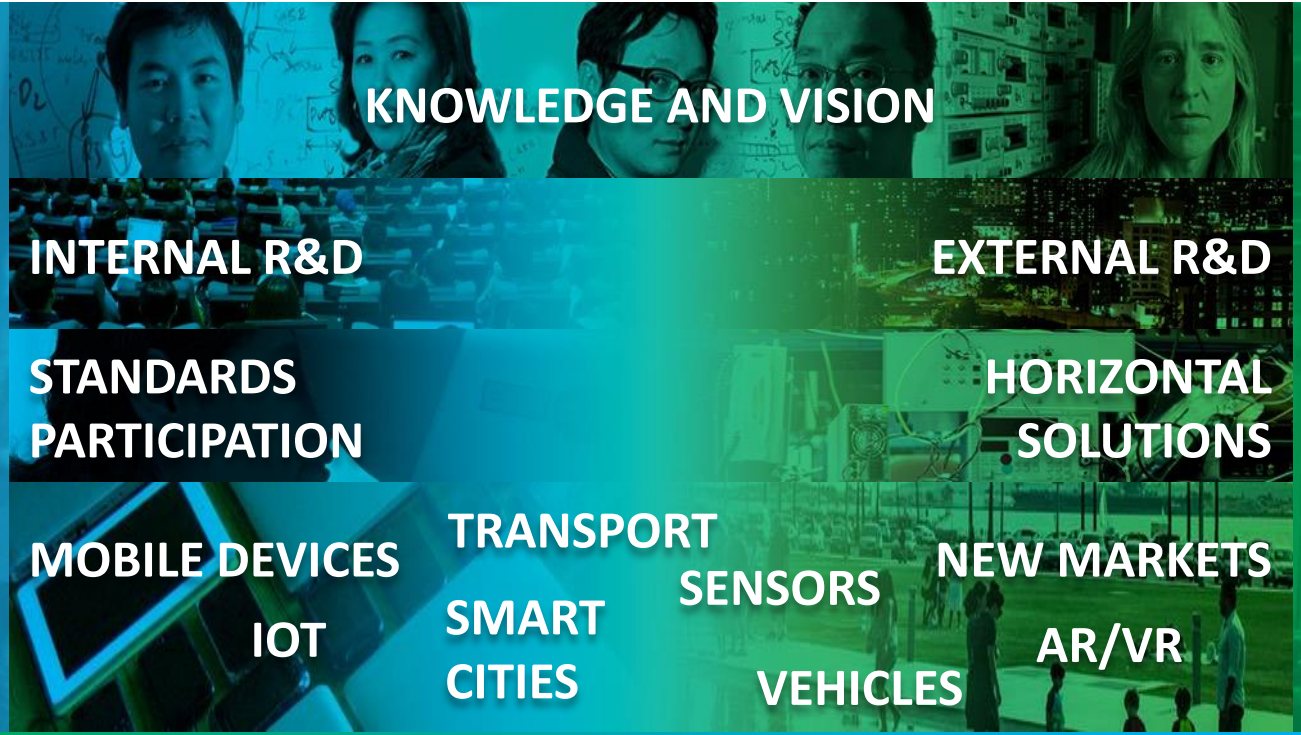
© 2016 InterDigital, Inc. All Rights Reserved.

And That Value Would Grow, as the Market Expanded



© 2016 InterDigital, Inc. All Rights Reserved.

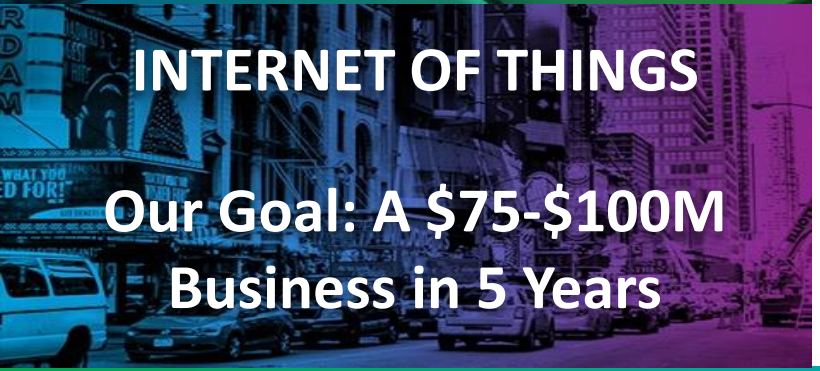
Now, We're Extending That Model



© 2016 InterDigital, Inc. All Rights Reserved.

The Result: Expanded Revenue Opportunities – With Outsized Profit Potential





ASSUMING THE SAME OPERATING COST BASIS AS TODAY

A $100M increase in revenue…



…could drive a ~50% increase in operating income



© 2016 InterDigital, Inc. All Rights Reserved.



© 2016 InterDigital, Inc. All Rights Reserved.

INTERDIGITAL