# VIDI PATH™

# Market Review

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# The VidiPath Opportunity is Now



Samsung VidiPath Client

Xfinity VidiPath Service on X1 Platform

Broadcom VidiPath Client

Tablet VidiPath Client

*Xfinity VidiPath Service for the X1 Platform running on Comcast production plant displayed on Samsung TV, Broadcom STB and Awox reference tablet.*

dlna®

# About ABI

*"The partner of choice for those seeking to capture leadership in the connected world of tomorrow."*

**Market Data** → **Research Analysis** → **Competitive Assessment** → **Analyst Insight** → **Analyst Inquiry**

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## RESEARCH SECTORS

| | |
|---|---|
| IoE, Enterprise, & M2M | Wearables & Devices |
| Cloud Content & OTT Video Delivery | Connected Home |
| Autonomous Driving & Location Tech | Network Densification & Infrastructure |
| Next Generation Network Services | Digital Security |
| Robotics | Semiconductors |
| Teardowns | |

ABI Research is a **technology market intelligence** company with a **25-year** proven track record that is focused on putting information into the hands of executives in order to enable them to make the right decisions on technology and market investment at the right time.

ABI Research quantifies the important markets of today, defines the strategic technologies of tomorrow, and provides insight on how technology is adopted into vertical markets.

**Founded** ----→ 1990

**Global** ----→ 11 offices across the Americas, Europe, Middle East, and the Asia-Pacific

**Comprehensive** ----→ 2,003 products published in 2014 ----→ **One of few firms with complete Teardown coverage: 1,468 devices and components available in 2014**

**Influential** ----→ Cited by media over 20,000 times in the 2014

# Modern Pay TV Challenges

- For the Big Screen
  - Professional installation and limited installation flexibility
  - Leased hardware adds on to published rates
  - Guides offer dated experiences

- For the Small Screen
  - Authentication hurdles inhibit consumption
  - Too many applications
  - Lack of uniform and centralized catalog

- As a package and experience
  - Fragmented rights inhibit availability
  - TV Everywhere isn't everywhere

**VIDIPATH™**

*Addressable*

# VidiPath

*What Is VidiPath?*

- Service Provider in Home Deployment to Any Device
  - Connected TV
  - Smart Set-top Box (STB), Game Console
  - Service Provider Thin Client STB
  - Tablet
- Specifies
  - Discovery
  - User experience delivery
  - Content protection

- Multiple Uses
  - Guide
  - Video Consumption
  - Remote Control
- Future-proof Technology Choices
  - HTML5, CSS, JavaScript-based UI
  - MPEG-DASH

# The flexible standard unifying media service and user-experience delivery to personal and leased devices through cable, satellite, and broadband (IP)

# VidiPath
*Key Benefits*

**Deliver HD** now, and soon UHD, onto every screen:
- ⇒ Leverage broadcast infrastructure and avoid unicast CDN and network costs
- ⇒ Lower your CPE capex, with no extra STB needed for second TV

Relies on **Robust and Next Generation** standards
- ⇒ DLNA certifies compliance of client implementations
- ⇒ HTML5 UI framework
- ⇒ No need to maintain separate applications for Android, iOS, Windows Phone
- ⇒ Speed up your user interface improvement on all platforms
- ⇒ **Protect content** with Hollywood-ready standard: DTCP IP

**Future-proof** technology choice
- ⇒ Supports hybrid broadcast / OTT delivery with MPEG DASH
- ⇒ Supports addressable advertising inside broadcast content

**Operationally ready** for service provider use cases
- ⇒ **Remote diagnostics** that diagnose consumer device connectivity
- ⇒ Isolate service provider network *versus* home network failures
- ⇒ **Low power** with tools to wake up idle home gateways
- ⇒ Ready for future regulation on power consumption

# How do I launch VidiPath?

*Roles*

- Service Provider
  - Envision your UI on every device
    - Think about unified linear, VOD & DVR
    - Think about the TV experience (10 foot) as well as mobile experiences for 9-inch and 5-inch devices
  - License or develop a server stack
    - Cloud-based UI or Gateway-based UI are possible
    - You likely already have HTML5 & DTCP-IP enablement
    - Leverage gateway and IP headend to deliver content
  - Multiple stack suppliers are active in this space

- TV OEM
  - Ask your existing stack vendor how to add VidiPath
  - Work with DLNA for certification compliance
  - Work with service providers on joint marketing and business relationships

- Mobile OEM
  - Build VidiPath into the O/S (leveraging stack vendor)
  - Build a VidiPath enabled app (leveraging stack vendor SDK)
  - Work with service providers on service-specific VidiPath framework apps

# Benefits to Operators

## *Business Benefits*

- Launch multiscreen services on a unified technology platform with wide use-case applicability
  - VidiPath with media consumption and control capabilities
  - Universal solution for large-screen devices such as smart TVs, game consoles, and smart STBs, as well as small-screen devices, *i.e.*, tablets and smartphones, from dozens of hardware manufacturers
- Reduce STB capital expense
  - Uses consumer-owned equipment offering lower upfront cost with installation flexibility
  - Meets strict content protection standards
  - Offers additional power savings benefits
- Retain control of user experience
  - Common UI framework controlled through guide platform and rendered on devices certified by DLNA
- Various deployment scenarios possible with value-added service potential
  - Re-use existing home networking connectivity technologies
- Works for larger and smaller service providers
  - Stop trying to develop unique applications for dozens of app stores
- Simplifies licensing requirements
- Meets regulatory requirements
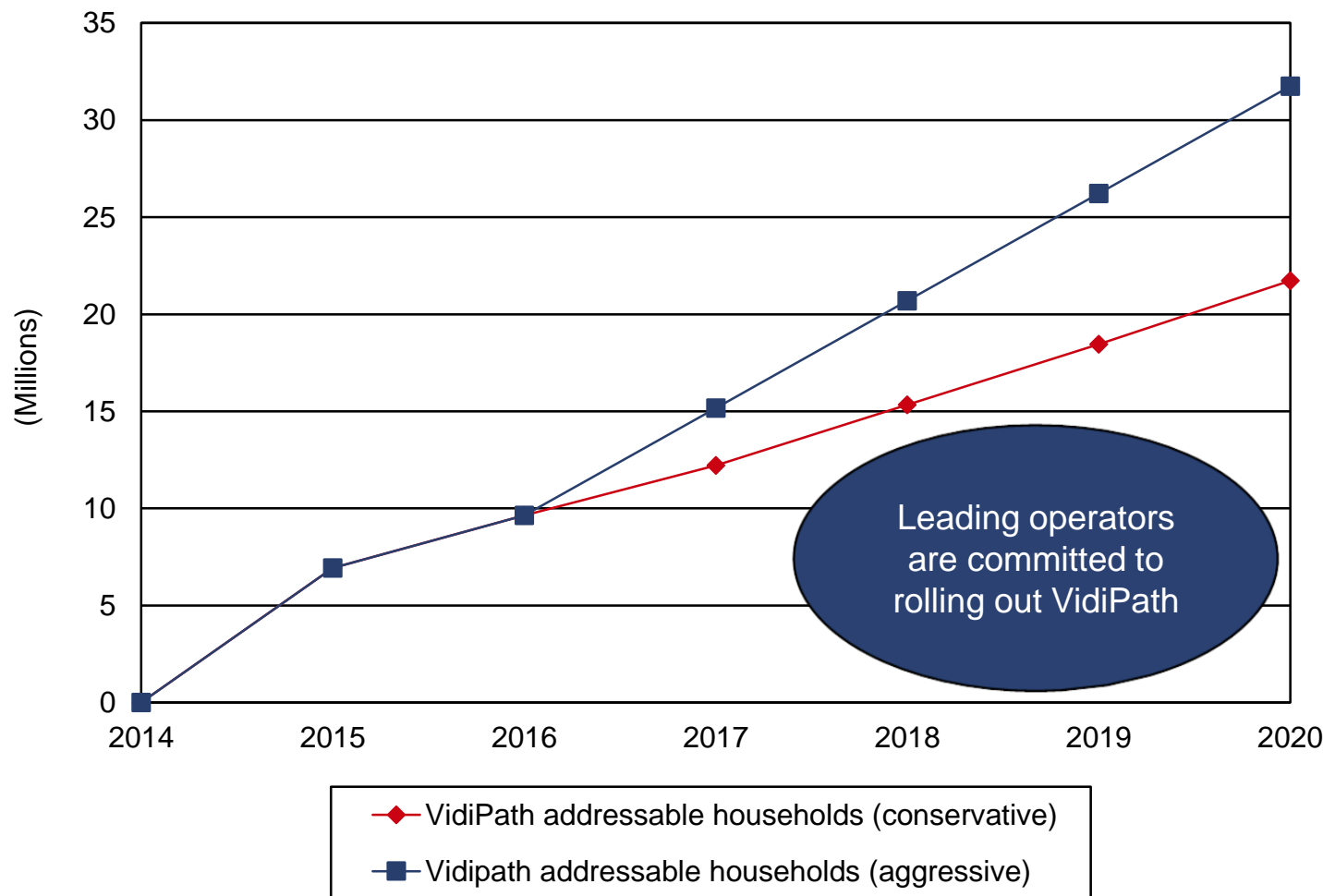
# Benefits to Operators

*Technical Benefits*

- Launch multiscreen services in a universal, platform agnostic way with a single point of management, authentication and provisioning

- Uniform mechanism for a variety of end-device categories
  - Internally deployed thin client STBS
  - Variety of smart TV devices, such as smart TVs, game Consoles, and smart STBs
  - Tablets and smartphones

- Supports variety of content delivery mechanisms
  - Live, VOD, and DVR content
  - Transition from QAM to IP leveraging in-home CPE or cloud-based IP headend
  - Supports adaptive bitrate with transcoding for wireless scenarios

- Framework for validating and authorizing individual devices
  - Based on certificate
  - Supports diverse business model / provisioning scenarios

- Resolve "long tail" of devices
  - Even if you choose to go "native" on iOS, Android, and top 3 TV OEM platforms
  - Windows phone, smaller TV manufacturers, *etc.*

# VidiPath Addressable Households, Millions

## *North American Cable Market*

## VidiPath Homes Creates Opportunity for CE OEMs



Leading operators are committed to rolling out VidiPath

Legend:
- VidiPath addressable households (conservative)
- Vidipath addressable households (aggressive)

# Benefits to CE Manufacturers

*For Big-screen Devices*

- Single Stack Development for all participating operators
  - Well-aligned with core components of other international standards, *i.e.*, Smart TV Alliance, HbbTV, Digital TV Group, *etc.*
  - HTML5, CSS, and JavaScript
  - MPEG-DASH
- Opens potential for joint marketing promotion and recurring revenue streams between service providers and consumers
  - **Marketing Promotion**: Save US$200 on a new HDTV with 2-year pay-TV subscription
  - **Hardware Cost Deferment**: Monthly SP-CE maintenance fees for TV as an STB
- Ensures connectivity of smart TVs, possibly with professional install
  - May get reliable hard-wired MoCA certification or high-performance Wi-Fi 802.11ac 5 GHz to reduce interference
- Reduces requirement for hardware inputs
  - Over time will reduce pressure for costly physical HDMI inputs

# Benefits to CE Manufacturers

*For Tablets and Smartphones*

- Video is the killer app
  - Solve content licensing challenges causing consumer frustration
  - Provide flexible and dynamic delivery leveraging best delivery mechanism
    - Broadcast > multicast > unicast leveraging cable or satellite networks
    - Saves on consumer data plans
- Single Stack Development for all participating operators
  - Move from the app store to native installation of applications
- Opens potential for joint marketing promotion and recurring revenue streams between service providers and consumers
  - **Marketing Promotion**: Get a free tablet with 2-year pay-TV subscription
    - Watch TV on the go
- Help consumers enjoy great content with bandwidth savings
  - Video over Wi-Fi when in the home saves your data for when you need it most

# Benefits to Consumers

*VidiPath*

- All my content on all my screens!

- I got a new TV for a lot less money and save money each month on cable STB rental fees

- Love my new TV
  - Looks great in my living room
  - Fits anywhere in the room – no worry about the cable plug
  - Single remote control with a modern UI
  - HD quality everywhere
  - Will work the same, even when I move

- Tablet Experience
  - I was able to remove apps, simplifying my home screen and freeing up memory on my tablet for music and movies
  - I can go upstairs and watch directly on the tablet
  - One app gives me everything I need: remote control, live, and VOD viewing

# Example Economic Overview – STB Cost

*3 TV Home Deployment*

### Gateway & Thin Client Model

- Gateway STB      US$300
- 2 Thin Client STB      US$200
- Installation with 3 wires      US$200

Total      US$700

### Gateway & VidiPath Model

- Gateway STB      US$300
- 2 VidiPath Clients      US$0
- 1 MoCA – Ethernet Bridge      US$50
- Installation with 2 wires      US$125

Total      US$475

32% CAPEX Savings!

## ABI Research Analysis

# Example Business Model
## *Revenue Structure*

### Before VidiPath
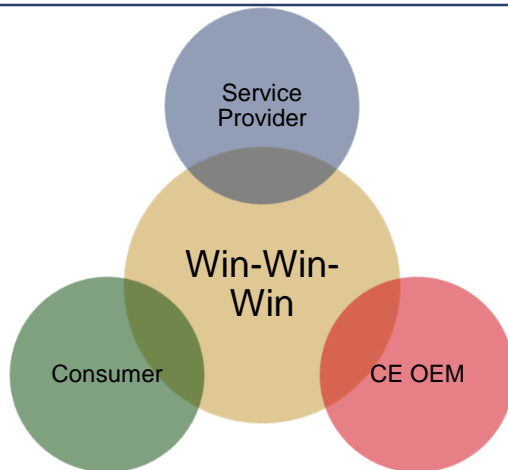
- Programming Fee          US$60
- Gateway Rental           US$18
- HD Receiver (2)          US$16

  Total                    US$92

### With VidiPath

- Programming Fee          US$60
- Gateway Rental           US$18
- 2 to 5 Screen            US$12
- +6 to 10 Screens (25% uptake)  US$6
- Home Network Support     US$8
  (optional, 50% uptake)

  Total                    US$95.5

Service Provider

Win-Win-Win

Consumer

CE OEM

**ABI Research Analysis**

Higher ARPU, Higher Value, Higher Margins, CE Incentives

# Example Economic Overview – Development Cost

### Before VidiPath

- EPG & Technology          US$1M
- Big Screen UI Design      US$250K
- Small Screen UI Design    US$150K
- 4 Platform S / W Ports    US$400K

  Total                     US$1.8M

### With VidiPath

- EPG and Technology        US$1M
- Big Screen UI Design      US$250K
- Small Screen UI Design    US$150K

  Total                     US$1.4M

| 40% TV Penetration |
| 85% Mobile Penetration |

| 65% TV Penetration |
| 95% Mobile Penetration |

22% Savings!

## ABI Research Analysis

# VidiPath Benefits over traditional technology rollout

## US $350 per subscriber cumulative over 5 years

### Monthly VidiPath Impact

$120

$100

$3.50 Monthly ARPU Benefit

$80

$60

$3.00 Monthly Cost Benefit

$40

$6.50 Monthly Net Income Benefit

$20

$0

Baseline          VidiPath

■ ARPU   ■ Costs   ■ Net Income

$400

$350

$300

$250

$200

$150

$100

$50

$0

2016    2017    2018    2019    2020
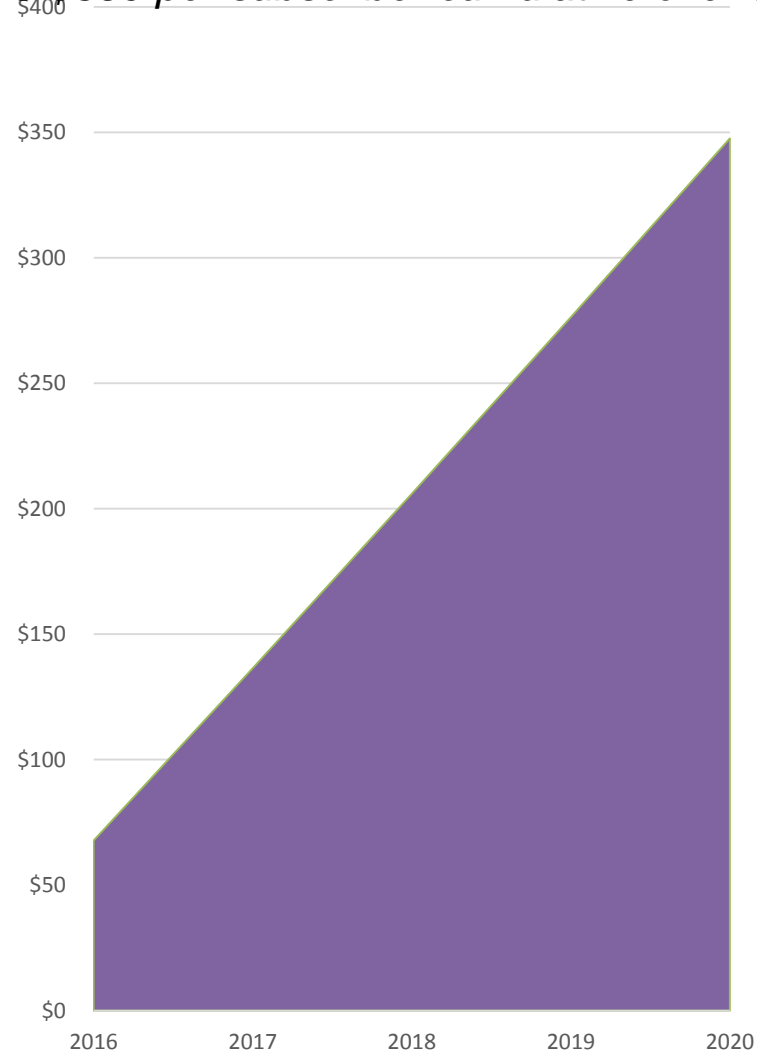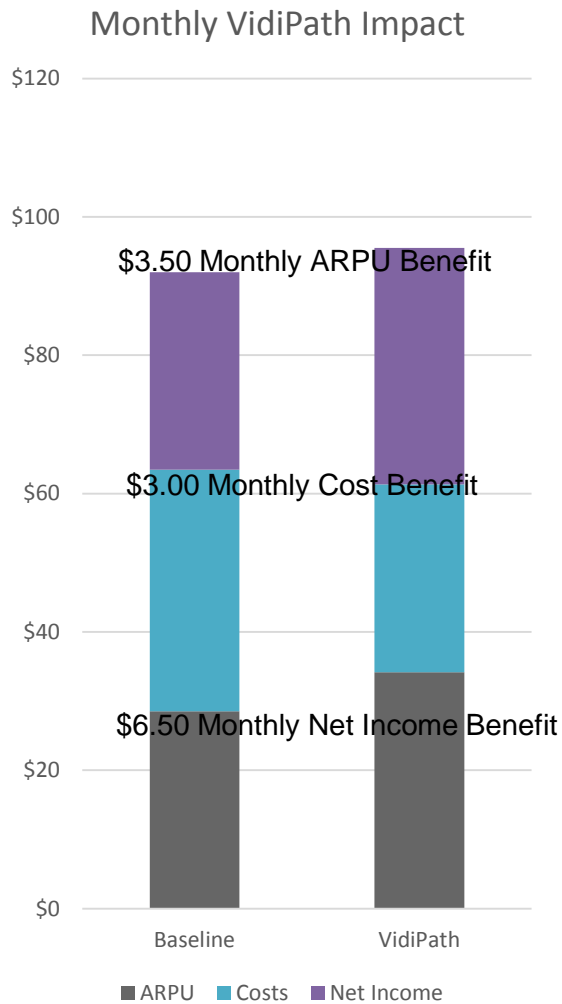
## ABI Research Analysis

# ABI's recommendation to the Industry
## *Key Features*

*VidiPath opens the door for the future of subscription TV*

**Universal Service Applicability**

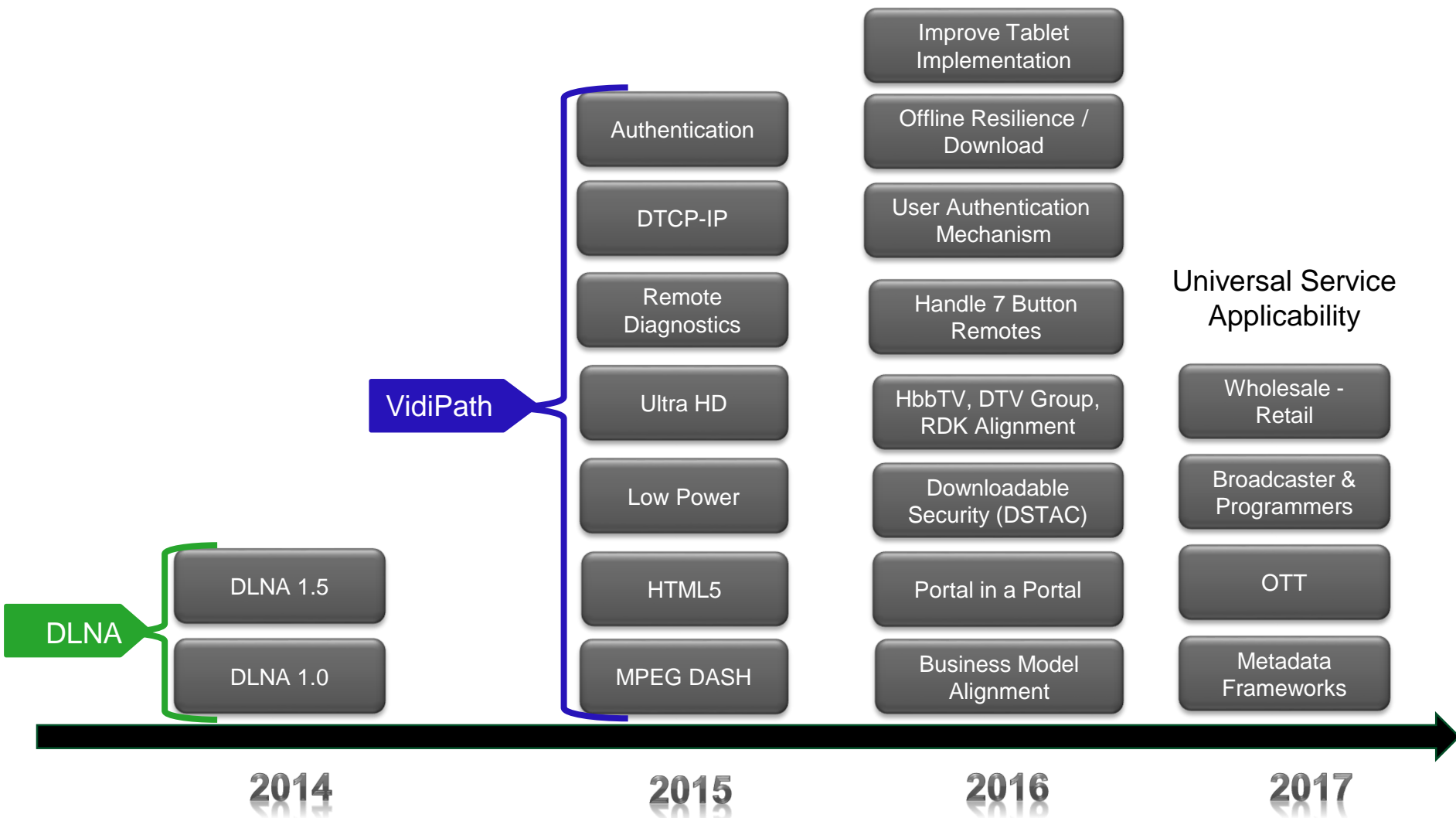| VidiPath | 2015 | 2016 | 2017 |
|----------|------|------|------|
| | Authentication | Improve Tablet Implementation | |
| | DTCP-IP | Offline Resilience / Download | |
| | Remote Diagnostics | User Authentication Mechanism | |
| | Ultra HD | Handle 7 Button Remotes | Wholesale - Retail |
| | Low Power | HbbTV, DTV Group, RDK Alignment | Broadcaster & Programmers |
| | HTML5 | Downloadable Security (DSTAC) | OTT |
| | MPEG DASH | Portal in a Portal | Metadata Frameworks |
| | | Business Model Alignment | |

**DLNA**
- DLNA 1.5
- DLNA 1.0

**2014      2015      2016      2017**

# Service Provider Technology Portfolio

*Complex with Multiple Technologies Intersecting*

**Distribute**

**Connect**

**Consume**

Distributor Broadcast Headend

Distributor IP Headend

Programmer IP Headend (TV-E)

VidiPath Extends the Reach of the Gateway

Gateway

DVR

STB

Thin Client

Dongle

Multiroom

Smart STB

Smart TV

Game Console

Blu-ray

PC

Tablet

Smartphone

TV

Laptop

Tablet

Smartphone

In Home

On the Go
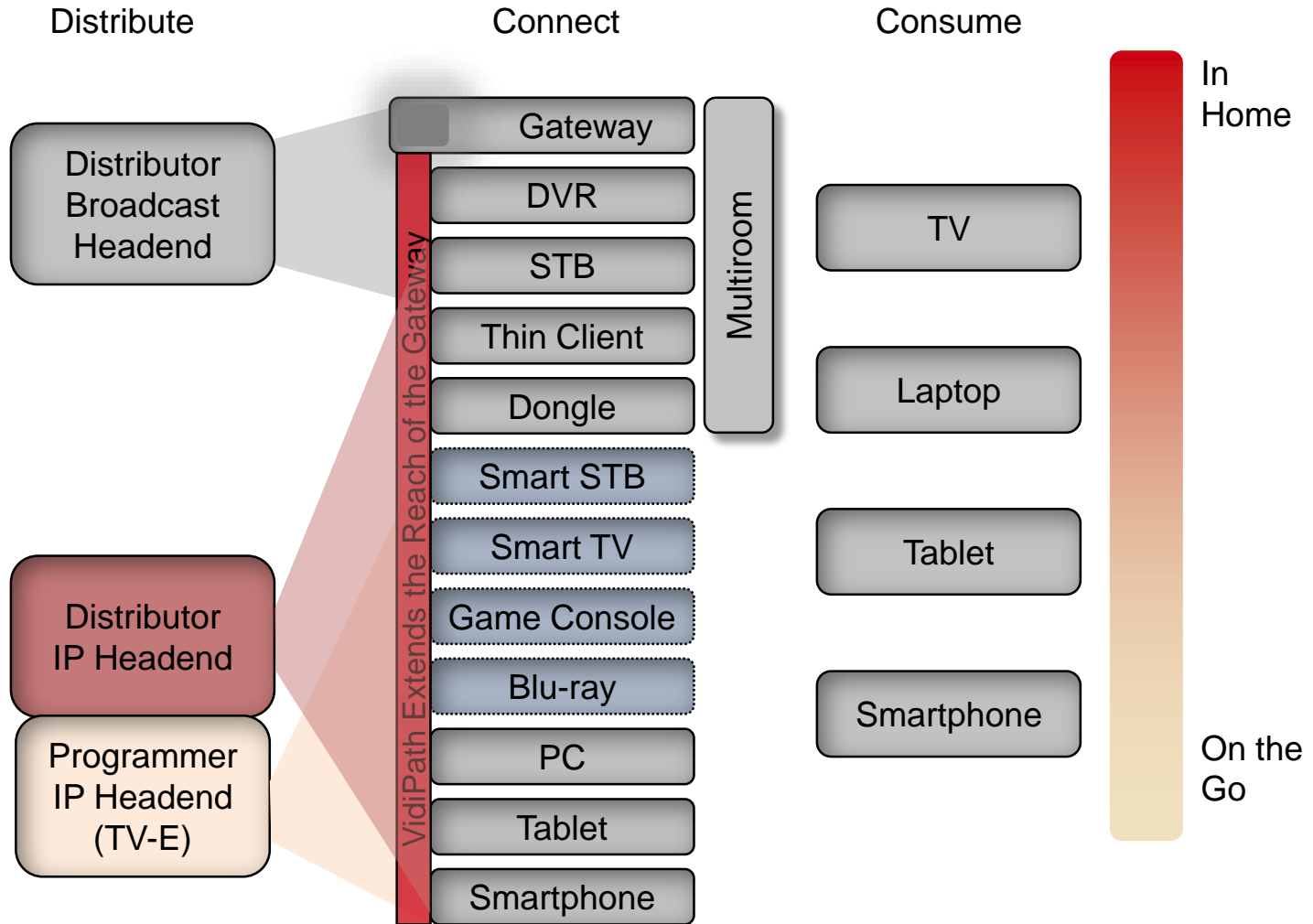
# VidiPath Summary

*Brings Media Services and User Experience into the Home*

- Well Positioned
  1. Helps operators manage CapEx cost and reach all devices
  2. Helps CE manufacturers achieve scale and deliver premium content
  3. Helps consumers get content onto every device

- Launching Now
- 40 percent of all U.S. cable households that subscribe to advanced services by 2016, and 70 percent by 2020.
- Additional VidiPath capabilities could extend footprint to 100 percent of advanced services footprint by 2017.

- Technology benefits allow winning new business models
  - Joint marketing engagements for new service activations ($200 off new TV)
  - Revenue sharing can provide benefits to both parties (CapEx reduction / TV connection / network maintenance / etc)

# Call to Action

- Implement VidiPath client in your Consumer Electronics products
  - Certification http://www.dlna.org/dlna-for-industry/cvp-2-certification
  - Tools http://www.dlna.org/dlna-for-industry/certification/test-tools
  - Information http://www.dlna.org/dlna-for-industry

- Deploy VidiPath server in your network

- Spread the excitement
- Watch a VidiPath demonstration streaming live content: https://www.youtube.com/user/DLNAchannel

dlna

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# Thank You!

## Please contact
## [katie@global-dlna.org](mailto:katie@global-dlna.org) for more information

## Presentation recording will be sent to attendees after the webinar

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