ATSC Mobile DTV Update

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October 2012

Always Innovating. Always There.

MOBILE DIGITAL TELEVISION

Presentation Agenda

- Status of MDTV Rollout

- A/153 Standards Update

- Mobile EAS Development

- Overview of MCV/Dyle TV

- Overview of Mobile500/MY DTV

- ## 130 US stations are "on air" in 50 DMA's
  - – Many are running 2 or more services
  - – MCV branded as Dyle TV now available in 35 markets
  - – M500 branded as MyDTV is preparing initial launch
- ## 3 Canadian station in 3 DMA's
- ## 2 Mexican stations in Mexico City
- ## 1 Station in Bermuda
  - – DMTV is running 6 services + 2 ATSC SD channels

Receiver Status

- Samsung Metro PCS Phones – available now

- El Gato iOS dongles - available late October

- Siano iOS dongles – available November

- Belken iOS dongles – available November

- RCA basic Android tablet receiver – available November

- AudioVox In Car receiver - Q1 2013

- RCA advanced Android tablet receiver – available Q2 2013

- Escort is planning an in car repeater
  - MDTV to WiFi

HARRIS

- ATSC A/153 Mobile DTV was standardized on 10/15/09

- Scalable Full Channel Mobile Mode (SFCMM) was added in 2010

- In 2011, broadcasters requested video resolution and encoding profile additions based on tablet devices with larger, higher resolution screens becoming popular

  - Main profile and higher resolutions were added Q2 2012

- ATSC S4 has recently been seeking a solution to the lack of dynamic range with the audio systems on small mobile devices

  - Recommended solution: lower dial norm reference to -13

A/153 & M-EAS

- At NAB 2012 LG, PBS Harris and Roundbox demonstrated a method to provide emergency alerting on mobile DTV devices
  - Banner alert messages and rich media files
- The Open Mobile Coalition petitioned the ATSC BoD to create a new work item leading to the standardization of MEAS
- ATSC S4-7 was formed to tackle the process
  - The current estimate is for the standardization to be completed and balloted during Q1 2013
- Details of MEAS will be presented by Wayne Luplow following this presentation

INTRODUCTION TO MCV

Introduction to MCV

The People:

- Salil Dalvi, SVP, NBCU Digital Distribution (Co-GM, MCV)

- Erik Moreno, SVP, Fox Networks Group Corp Dev (Co-GM, MCV)

- Rajan Mehta, Director, NBCU MediaWorks (CTO, MCV)

- Experienced team with expertise in broadcast, mobile and Internet

- Senior-Level Board from News Corp, NBCU, Hearst, Gannett & ION TV

The Venture:

- JV Partners: NBCU, Fox, ION, "Pearl 9"

- Assemble a critical mass of content & markets

- Speak with one voice to the ecosystem

- Develop and launch a Version 1 product

MCV Mobile Content Venture. Live. Local. Mobile.

Broadcast TV Is An Evolving Wireless Network

- Available in 210 markets in the US
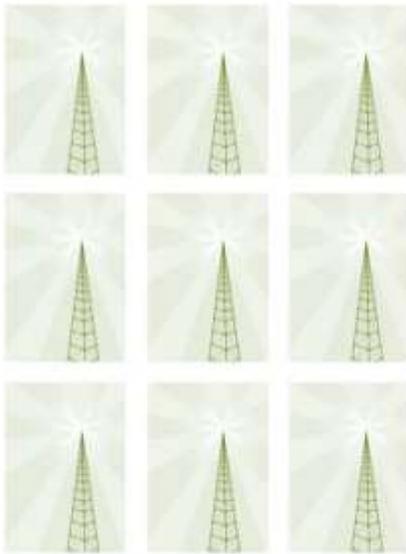- 19.4 Mbps bandwidth
- One-to-many architecture

Broadcast Today

- Live video delivered to TV sets

- In-home consumption

- Mainly retransmitted via cable/satellite

Next-Generation

- Video + data to mobile devices

- At home & on the go

- Direct-to-consumer & authenticated

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MCV Vision: A Next-Gen Broadcast Network

National Coverage, 50-100 Mbps/Market

Video & Data Pushed LIVE To Consumers

100MM Devices Multiple Form Factors

The First Step: Mobile TV

Use existing broadcast technology to offer consumers live, local TV on their mobile devices
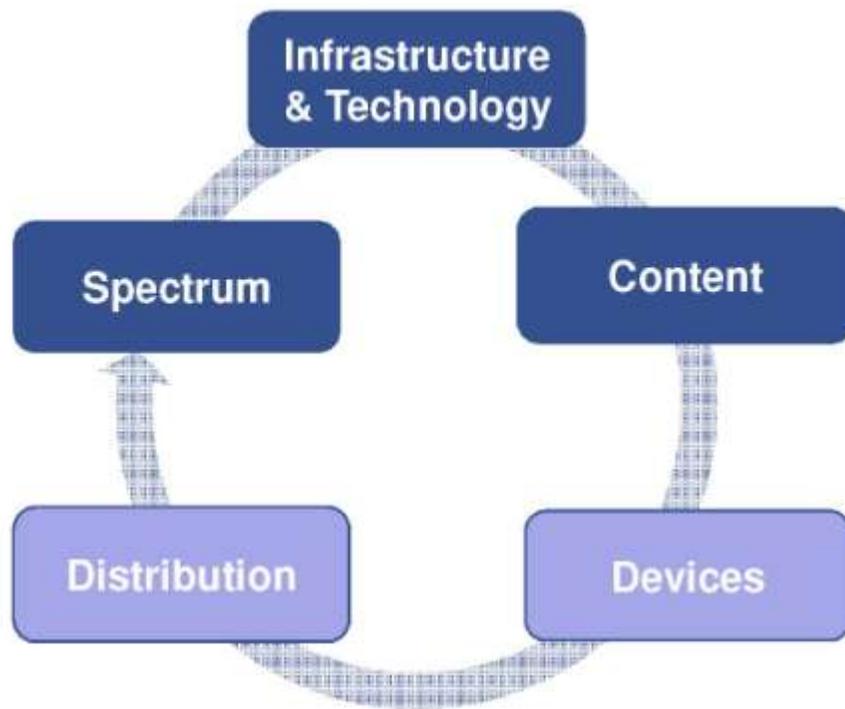
Turn every mobile device into a TV receiver

MOBILE TV ECOSYSTEM – MCV PROGRESS UPDATE

MCV Mobile Content Venture Live. Local. Mobile.

Mobile TV Ecosystem

MCV brings content and coverage to jump start the ecosystem

Ecosystem	Participant Considerations

Infrastructure & Technology

Spectrum

Content

Distribution

Devices

MCV Partner Assets

MCV

- Local stations, "lit for mobile", deploy national and local content

- Partners make content available "free to consumer" (initially and for a limited time)
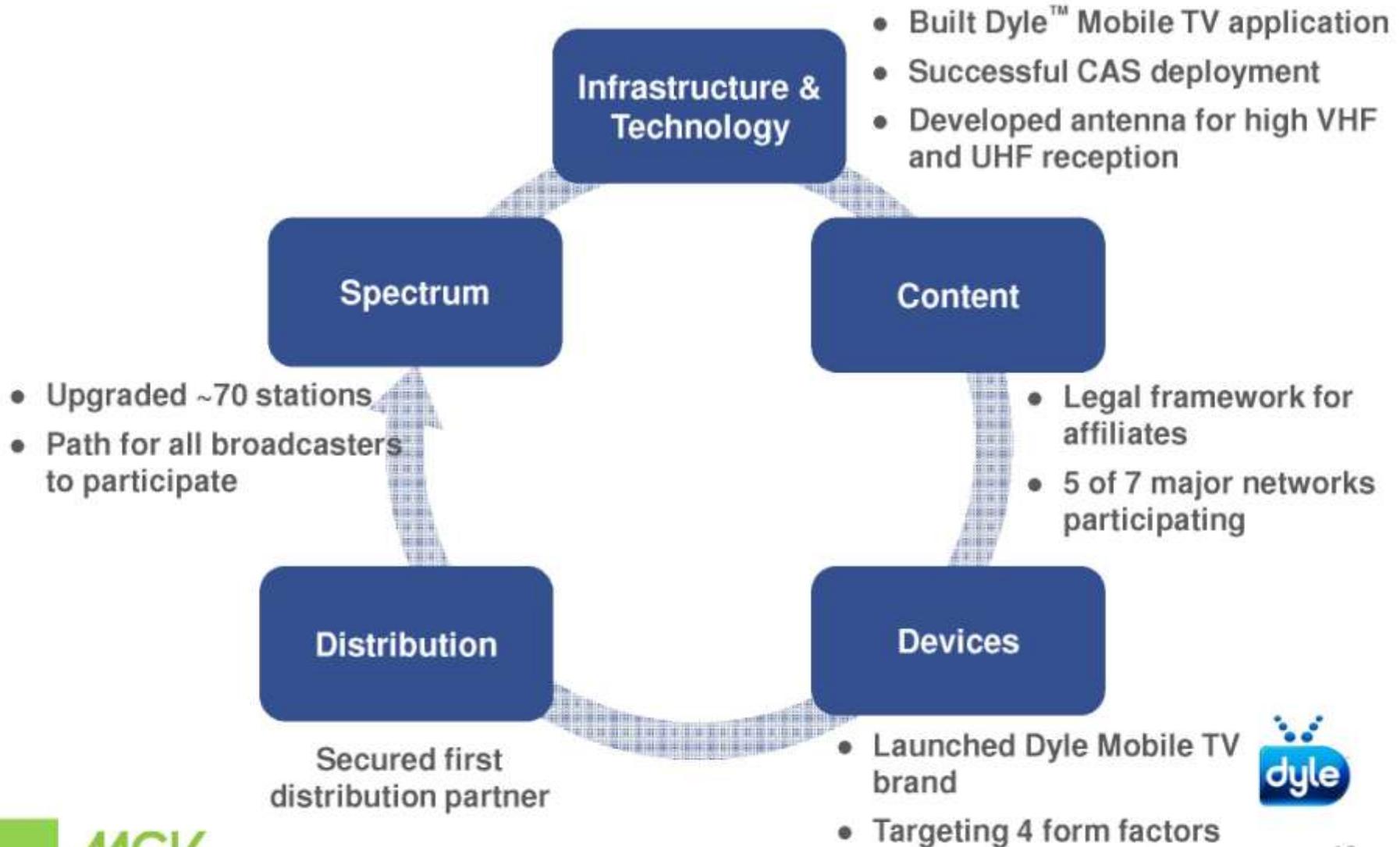
Devices

- OEMs driven strategically to differentiate devices, particularly from Apple

- Chipset manufacturers required to enable devices

Distribution

- Path to scale is via wireless carriers, MVPDs, and retailer relationships

Summary of Key MCV Milestones

MCV has made significant progress towards a commercial deployment of mobile TV

- Built Dyle™ Mobile TV application
- Successful CAS deployment
- Developed antenna for high VHF and UHF reception

Infrastructure & Technology

Spectrum

Content

- Upgraded ~70 stations
- Path for all broadcasters to participate

- Legal framework for affiliates
- 5 of 7 major networks participating

Distribution

Devices

Secured first distribution partner

- Launched Dyle Mobile TV brand
- Targeting 4 form factors

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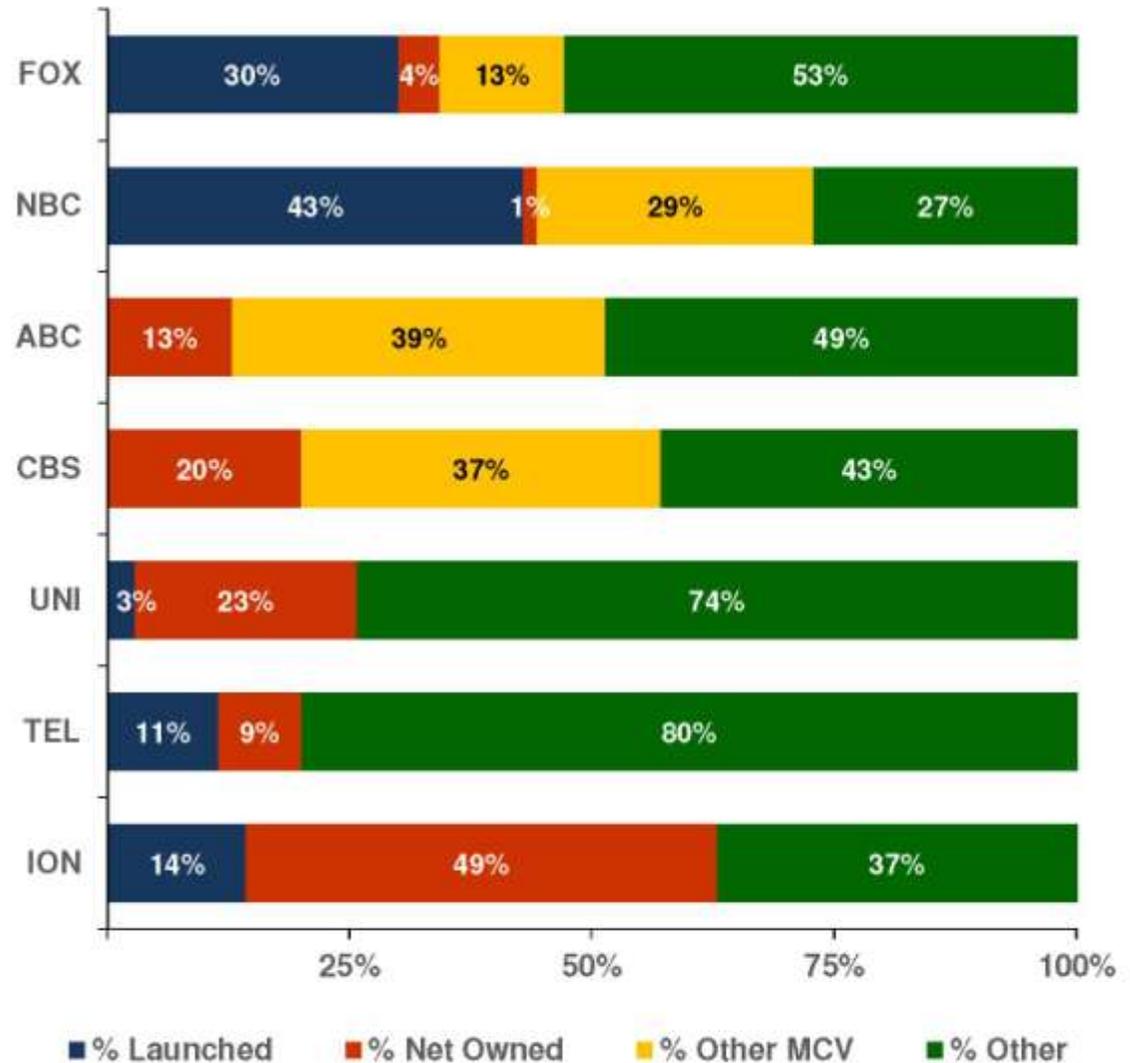
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MCV Coverage Will Grow Quickly

National Content: Networks

– NBC, FOX, ABC, CBS, Telemundo, Univision, CW, ION

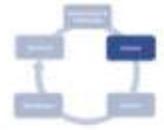**Local Content + Infrastructure:**

– Gannett, Hearst, Cox, Belo, Sinclair, Tribune, etc.

% Coverage of the US

	% Launched	% Net Owned	% Other MCV	% Other
FOX	30%	4%	13%	53%
NBC	43%	1%	29%	27%
ABC		13%	39%	49%
CBS		20%	37%	43%
UNI	3%	23%		74%
TEL	11%	9%		80%
ION	14%	49%		37%

25%   50%   75%   100%

■ % Launched   ■ % Net Owned   ■ % Other MCV   ■ % Other

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Update on Content Provider Engagement

5 broadcast networks have committed to participating in MCV's launch – MCV has primed path to securing remaining networks (ABC & CBS)

Current Content Participants

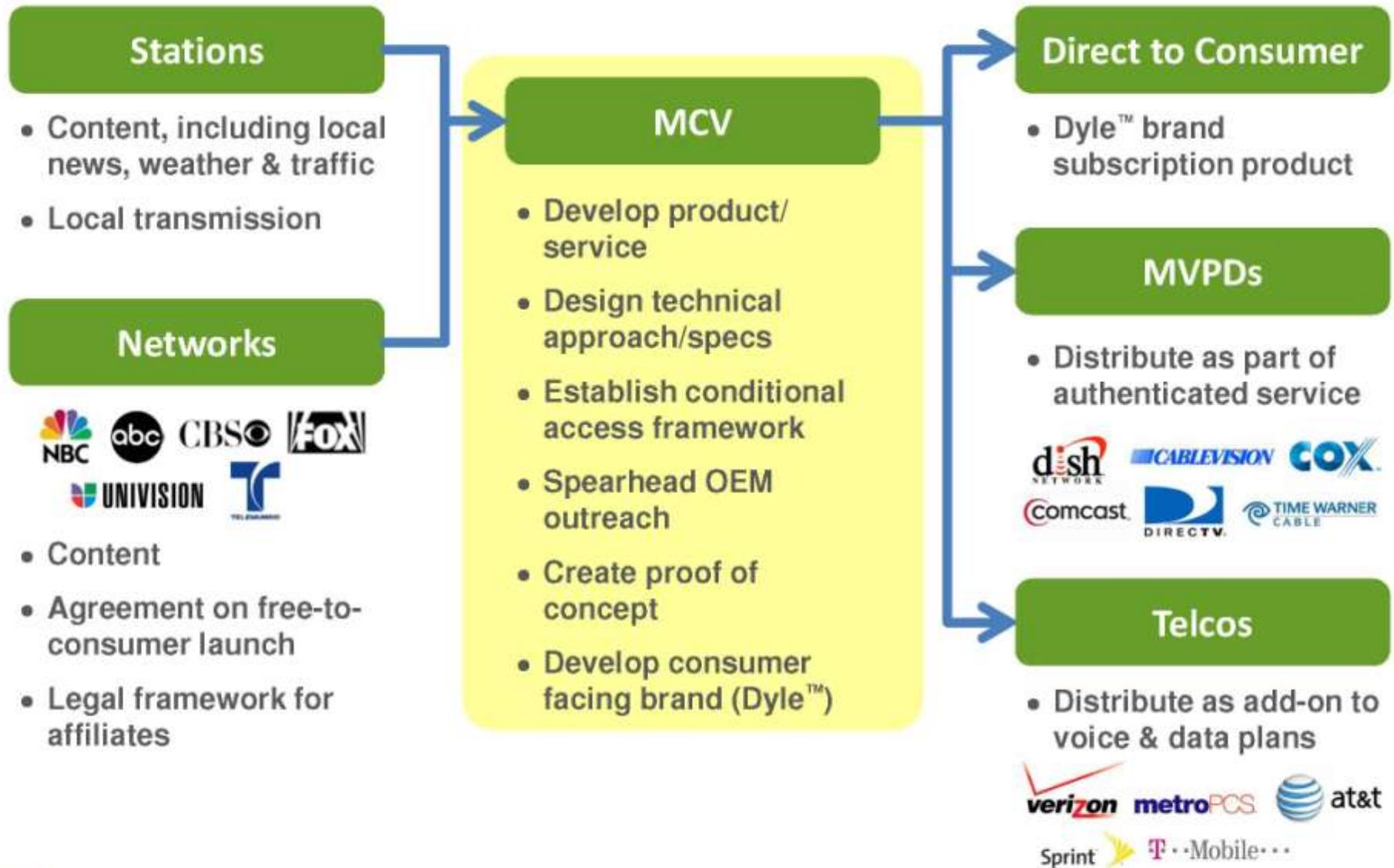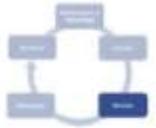| Comments |
| --- |

NBC   FOX

univision   TELEMUNDO   PBS

Participating in MCV launch

- 5 of the major 7 broadcast networks are participating

- ABC and CBS are interested and exploring how to participate

abc   CBS

Engaging with MCV

- **CBS is currently experimenting with 3 O&O stations as part of MCV**

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Multiple Distribution Models Exist

Stations

- Content, including local news, weather & traffic
- Local transmission

Networks

NBC abc CBS FOX
UNIVISION T

- Content
- Agreement on free-to-consumer launch
- Legal framework for affiliates

MCV

- Develop product/ service
- Design technical approach/specs
- Establish conditional access framework
- Spearhead OEM outreach
- Create proof of concept
- Develop consumer facing brand (Dyle™)

Direct to Consumer

- Dyle™ brand subscription product

MVPDs

- Distribute as part of authenticated service

dish CABLEVISION COX
comcast DIRECTV TIME WARNER CABLE

Telcos

- Distribute as add-on to voice & data plans
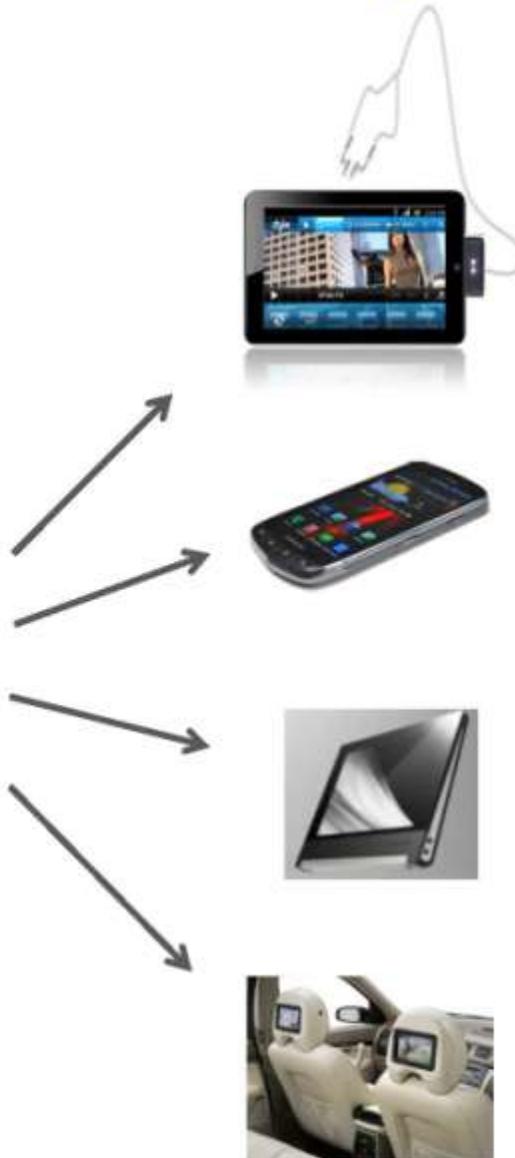
verizon metroPCS at&t
Sprint T··Mobile···

2012 Consumer Launch – *Target Form Factors*

Registered users get free broadcast TV during 2012

32 Markets, 50% of US Pop.

Accessory & app for iOS devices

Embedded tuner/app in 4G Android device

Value-priced, dual-tuner "smart TV"

Embedded in-car reference design

Go-To-Market Strategy – *Distributors*

MCV has begun talking to MVPDs and wireless carriers – a partnership with LG would bolster distributors' confidence in the platform and device availability

MVPDs	**Wireless Carriers**

Potential Distributors

comcast COX

DIRECTV TIME WARNER CABLE

CABLEVISION

verizon at&t

T··Mobile··· Sprint

metroPCS

Considerations

- Position as part of an authenticated model

- Fits with MVPDs' efforts to offer additional services/benefits to attract and keep consumers

- May be willing to subsidize devices to keep paid video subscribers from "cutting the cord"

- Position as upsell/add-on service – will also drive uptake of data plans

- Carriers have history of subsidizing handsets, but investment in ATSC-MH more likely if chipset costs fall

- May consider subsidizing tablets – higher price point makes incremental impact of ATSC-MH smaller

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Go-To-Market Strategy – *Retailers*

MCV has been priming the pump with retailers as it looks to launch other Dyle-enabled devices

Retail Distribution

Potential Retail Partners

Considerations
- Target retailers who do not have their own dedicated devices

- These retailers are trying to differentiate themselves from Apple and Amazon who are pushing their own devices through their proprietary channels
  - They are eager for a "hero" device that will bring consumers through the door

- MCV already working to create pull-through from these retailers as a result of efforts to launch other Dyle-enabled devices and accessories
  - MCV, retailers, and other partners to put real muscle behind promoting Dyle platform and enabled devices
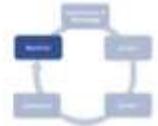
MCV Network Rollout – MCV Stations Only

Phase 1 launch is in 32 DMAs covering 51% of the US TV HH's

High VHF (yellow highlight)

DMA	Market	US TV HH's	Cum % of US TV HH's	Current MCV Inventory (Owner & RF Channel) FOX		NBC		ION		TEL		UNI		IND	
1	New York, NY	7.4M	6%	FOX	44	NBC	28	ION	31	NBC	36				
2	Los Angeles, CA	5.6M	11%	FOX	11	NBC	36	ION	38	NBC	39	UNI	34		
3	Chicago, IL	3.5M	14%	FOX	31	NBC	29	ION	43	NBC	45				
4	Philadelphia, PA	3.0M	17%	FOX	42	NBC	34	ION	31						
5	Dallas, TX	2.6M	19%	FOX	35	NBC	41	ION	42	NBC	40				
6	San Francisco, CA	2.5M	21%	Cox	36	NBC	12	ION	41	NBC	49				
8	Washington, DC	2.4M	23%	FOX	36	NBC	48	ION	34						
9	Atlanta, GA	2.3M	25%	FOX	27	Gannett	10	ION	51						
10	Houston, TX	2.2M	27%	FOX	26	Post News	35			NBC	48				
11	Detroit, MI	1.8M	29%	FOX	7	Post News	45	ION	31						
12	Seattle, WA	1.8M	31%			Belo	48								
13	Phoenix, AZ	1.8M	32%	FOX	10	Gannett	12							Belo	24
14	Tampa, FL	1.8M	34%	FOX	12	Med Gen	7								
15	Minneapolis, MN	1.7M	35%	FOX	9	Gannett	11								
16	Miami, FL	1.6M	37%			NBC	16			NBC	30	UNI	23		
17	Denver, CO	1.5M	38%			Gannett	9								
18	Cleveland, OH	1.5M	39%			Gannett	17								
19	Orlando, FL	1.5M	41%	FOX	22	Hearst	11								
21	St. Louis, MO	1.3M	42%			Gannett	35								
22	Portland, OR	1.2M	43%	Meredith	12	Belo	8								
24	Raleigh, NC	1.1M	44%			Med Gen	17								
25	Charlotte, NC	1.1M	45%			Belo	22								
31	Kansas City, MO	0.9M	45%			Scripps	41								
32	Columbus, OH	0.9M	46%			Med Gen	14								
35	Cincinnati, OH	0.9M	47%	Raycom	29	Hearst	35								
37	Greenville, SC	0.9M	48%	Meredith	21	Hearst	36								
38	West Palm Beach, FL	0.8M	48%	Raycom	28	Scripps	12								
39	Birmingham, AL	0.7M	49%	Raycom	50	Med Gen	13								
40	Las Vegas, NV	0.7M	50%	Meredith	9					NBC	40				
59	Tulsa, OK	0.5M	50%			Scripps	8								
61	Knoxville, TN	0.5M	51%	Raycom	34	Gannett	10								
119	Montgomery, AL	0.2M	51%			Raycom	12								
Total		**58.1M**	**51%**	**21**		**31**		**9**		**8**		**2**		**1**	

Potential Rollout – *With Additional Station Groups*

| DMA	Market	US TV HH's	Cum % of US TV	FOX	NBC	ABC	CBS	UNI	TEL	PBS	ION
				* Potential Participating Stations							
1	New York, NY	7.4M	6%	FOX	NBC	ABC	CBS	UNI	NBC		ION
2	Los Angeles, CA	5.6M	11%	FOX	NBC	ABC	CBS	UNI	NBC		ION
3	Chicago, IL	3.5M	14%	FOX	NBC	ABC	CBS	UNI	NBC		ION
4	Philadelphia, PA	3.0M	17%	FOX	NBC	ABC	CBS	UNI			ION
5	Dallas, TX	2.6M	19%	FOX	NBC	Belo	CBS	UNI	NBC		ION
6	San Francisco, CA	2.5M	21%	Cox	NBC	ABC	CBS	UNI	NBC		ION
7	Boston, MA	2.4M	23%	FOX		Hearst	CBS			PBS	ION
8	Washington, DC	2.4M	26%	FOX	NBC		Gannett			PBS	ION
9	Atlanta, GA	2.3M	28%	FOX	Gannett	Cox	Meredith	UNI			ION
10	Houston, TX	2.2M	29%	FOX	Post News	ABC	Belo	UNI	NBC		
11	Detroit, MI	1.8M	31%	FOX	Post News	Scripps	CBS				ION
12	Seattle, WA	1.8M	33%		Belo		Cox				
13	Phoenix, AZ	1.8M	34%	FOX	Gannett	Scripps	Meredith	UNI			
14	Tampa, FL	1.8M	36%	FOX	Med Gen	Scripps	Gannett			PBS	
15	Minneapolis, MN	1.7M	37%	FOX	Gannett		CBS				
16	Miami, FL	1.6M	39%		NBC	Post News	CBS	UNI	NBC		
17	Denver, CO	1.5M	40%		Gannett		CBS				
18	Cleveland, OH	1.5M	41%		Gannett	Scripps	Raycom	UNI			
19	Orlando, FL	1.5M	43%	FOX	Hearst	Cox	Post News				
20	Sacramento, CA	1.4M	44%		Hearst	Gannett	CBS	UNI		PBS	
21	St. Louis, MO	1.3M	45%		Gannett		Belo				
22	Portland, OR	1.2M	46%	Meredith	Belo						
23	Pittsburgh, PA	1.2M	47%		Cox	Hearst	CBS				
24	Raleigh, NC	1.1M	48%		Med Gen	ABC		UNI			
25	Charlotte, NC	1.1M	49%		Belo	Cox	Raycom				
26	Indianapolis, IN	1.1M	50%				LIN				
27	Baltimore, MD	1.1M	51%		Hearst	Scripps	CBS				
28	San Diego, CA	1.1M	52%								
29	Nashville, TN	1.0M	53%		Meredith						
30	Hartford, CT	1.0M	54%		NBC	LIN	Meredith				
31	Kansas City, MO	0.9M	54%		Scripps	Hearst	Meredith				
32	Columbus, OH	0.9M	55%		Med Gen						
33	Salt Lake City, UT	0.9M	56%					UNI			
34	Milwaukee, WI	0.9M	57%			Hearst					
35	Cincinnati, OH	0.9M	58%	Raycom	Hearst	Scripps					
	Sub-Total	**66.0M**	**58%**	**17**	**30**	**24**	**27**	**14**	**7**	**4**	**10**

Note: Assumes that ABC, CBS, LIN, UNI and PBS participate. ABC and CBS participation enables Pearl affiliates to participate as well. Top 70 DMAs only

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Potential Rollout Cont. – *With Add'l Station Groups*
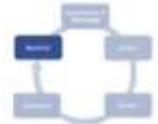
DMA	Market	US TV HH's	Cum % of US TV	FOX	NBC	ABC	CBS	UNI	TEL	PBS	ION
					Potential Participating Stations						
36	San Antonio, TX	0.9M	58%			Post News	Belo	UNI			
37	Greenville, SC	0.9M	59%	Meredith	Hearst		Med Gen				
38	West Palm Beach, Fl	0.8M	60%	Raycom	Scripps	Hearst					
39	Birmingham, AL	0.7M	60%	Raycom	Med Gen					PBS	
40	Las Vegas, NV	0.7M	61%	Meredith					NBC	PBS	
41	Harrisburg, PA	0.7M	62%		Hearst						
42	Grand Rapids, MI	0.7M	62%		LIN	Gannett					
43	Norfolk, VA	0.7M	63%	LIN	LIN	Belo					
44	Oklahoma City, OK	0.7M	64%			Hearst					
45	Albuquerque, NM	0.7M	64%	LIN	LIN	Hearst	LIN			PBS	
46	Greensboro, NC	0.7M	65%		Hearst		Gannett				
46	Austin, TX	0.7M	65%	FOX	LIN	Belo		UNI			
48	Louisville, KY	0.7M	66%		Raycom	Belo	Hearst				
49	Memphis, TN	0.7M	67%	FOX	Raycom						
50	Jacksonville, FL	0.7M	67%		Gannett	Gannett					
51	Buffalo, NY	0.6M	68%		Gannett	Granite	LIN				
52	New Orleans, LA	0.6M	68%		Hearst		Belo				
53	Providence, RI	0.6M	69%	LIN	Med Gen		LIN				
54	Wilkes Barre, PA	0.6M	69%								
55	Fresno, CA	0.6M	70%			ABC		UNI			
56	Little Rock, AR	0.6M	70%				Gannett				
57	Richmond, VA	0.6M	71%		Raycom						
58	Albany, NY	0.6M	71%								
59	Tulsa, OK	0.5M	72%		Scripps						
60	Mobile, AL	0.5M	72%	LIN			Med Gen				
61	Knoxville, TN	0.5M	73%	Raycom	Gannett						
62	Ft. Myers, FL	0.5M	73%								
63	Dayton, OH	0.5M	74%		LIN		Cox				
64	Lexington, KY	0.5M	74%								
65	Charleston, WV	0.5M	74%								
66	Roanoke, VA	0.5M	75%		Med Gen					PBS	
67	Wichita, KS	0.5M	75%								
68	Flint, MI	0.5M	76%			ABC	Meredith				
69	Green Bay, WI	0.4M	76%	LIN							
70	Tucson, AZ	0.4M	76%	Belo			Raycom	UNI			
	Total	**153.6M**	**76%**	**30**	**50**	**36**	**40**	**18**	**8**	**8**	**10**

Note: Assumes that ABC, CBS, LIN, UNI and PBS participate. ABC and CBS participation enables Pearl affiliates to participate as well. Top 70 DMAs only

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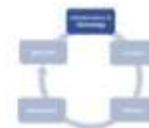
Go-To-Market Strategy – *Technical Stack*

MCV has made progress in integrating the various vendors necessary to deliver a cohesive service

Layer	MCV Hardware/Software Stack	Vendors

MCV Application

- MCV User Interface
- 3rd Party User Interface
- Media Player

mobitv
Developed android and iOS app for Dyle platform

MCV Software Development Kit

- RME Engine
- Advertising
- Broadband Video API
- ESG Engine
- Service Measurement
- Subscription API
- CAS Engine
- NRT/Storage Engine
- Download API

EXPWAY
Developing middleware

NAGRAVISION KUDELSKI GROUP
Powering CAS solution

Device Hardware

- CPU
- ATSC-MH Receiver
- Storage
- 3G / 4G / WiFi

LG · siano · AUDIOVOX · SAMSUNG · DELL · hTC · RCA · MOTOROLA

The technical pieces are in place to facilitate quick development – LG can plug into this technical stack to minimize time to market

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Successful Conditional Access Deployment
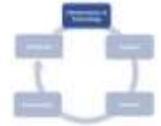
MCV conducted first successful end-to-end deployment of conditional access system – proved CAS technology works and is ready to be deployed

CAS Requirements

- **CAS allows MCV to build a viable business model for all ecosystem participants**

- **Station Requirements:**
  - Video encoder with IP scrambling
  - Electronic Service Guide
  - 24/7 secure connection to the NAGRA Conditional Access head-end
  - Mobile TV monitoring probe

- **OEM Requirements:**
  - Integrate with MCV middleware API
  - Meet MCV receiver performance specifications (UHF/High VHF)
  - Pass MCV device certification
  - Embed certificates, from MCV Trust Authority (Neustar) into devices

Overview of Test

- **Goal:** To test NAGRA Conditional Access Platform and its interoperability with the major M/H vendors

- **Participation:** 14 vendors over 10 days

- **Test Location:** NBC ONO KNTV San Jose (25th July to 5th Aug)

- **Test Environment:** 2 scrambled channels and 1 in the clear – live OTA broadcasts

- **Test Validation:** Decontis monitoring and MobiTV CA descrambling application

- **Results:** For first time, proved dynamic key conditional access for M/H worked
  - Proved vendor interoperability

Antenna Design Work and Implications
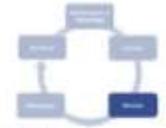
MCV has developed an antenna design that can receive both high VHF and UHF signals – allows all broadcasters to participate regardless of spectrum position

Standard Issue/Generic Earphones

Dyle™ Enabled Accessory

Dyle™ Enabled Accessory

Comments

- **Accessory to have MH chipset/receiver – will leverage cord of headset for antenna**
  - "Matching network" to enable antenna to receive both high V and UHF signals

- **Accessory compatible with both smartphones and tablets**
  - Accessory to be optimized for iOS and Android platforms

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Dyle Registration

Home Zip Code: 94608

Television Provider:

Service: Cable

Provider: Time Warner

Back   Continue

Location permission

Dyle needs to access your location information in order to deliver your programming guide and verify that you can receive certain content. You can read additional details of our collection and use of such information by reading our privacy policy at http://www.dyle.com/privacy. Please click ACCEPT to allow us to access your location information and proceed to the application

Decline   Accept

dyle 🏠 🖥 LIVE TV 🎞 ON DEMAND ▭ MY MEDIA ? 🔍

6 / 10   Now Playing   Up Next

The Dr. Oz Show
(9:00 AM – 10:00 AM)   i

11-1
KNTV
The Office
(7:00 AM – 11:00 AM)   i

msnbc
Andrea Mitchell
MSNBC   i

Now
News & Weather
ABC News Now   i

CNBC
The American Economy
CNBC   i

Mobile 500 Alliance   Board of Directors

- Colleen Brown, President of the Board
  - President and CEO, Fisher Communications
- Rob Hubbard, Vice President & Secretary
  - President and CEO, Hubbard Television Group
- Bert Ellis, Treasurer
  - President, Titan TV
- Mark Aitken, Technology Partnerships Chair
  - VP of Advanced Technology, Sinclair Broadcast Group
- Jimmy Goodmon, Content Partnership Chair
  - VP, General Manager, Capitol Broadcasting Group

Mobile 500 Alliance   Board of Directors

- Kerry Oslund (ex officio)
  - Corporate VP, New Media, Schurz Communications
- Joe Igoe – Chair, Public-Private Partnerships Committee (ex officio)
  - Chief Technology Officer, WGBH

Mobile 500 Alliance

- Organized to create broadcaster-centric Mobile DTV industry in U.S., September 2010

- Incorporated as Delaware non-profit corporation, November 2010

- Bylaws adopted; membership expressly opened to all broadcasters

- First Annual Meeting, April 2011

Mobile 500 Alliance   Statement of Principles

Proposal for an Industry-wide Statement of Principles to Foster an Open and Competitive Market for Mobile DTV

The Mobile500 Alliance, comprised of leading television broadcast organizations, is proposing a voluntary statement of principles to help guide the development of an open, competitive, pro-consumer, and successful Mobile DTV industry. This proposed statement is based on input, advice, and requests from companies and organizations in the broadcasting, programming, consumer electronics, private equity, and software and hardware industries that are bringing Mobile DTV to market. We are seeking an open and collaborative process to refine the proposed list and create a consensus statement that can be embraced by the whole industry.

Mobile 500 Alliance   Mission

- Developing a Mobile DTV business model permitting consumers to view popular broadcast content, as well as non-broadcast content with enhanced features

- Securing content arrangements with program suppliers and enhanced consumer device features with electronics manufacturers

- Building on the Mobile DTV standards activities of the OMVC to develop a business model

- Inclusive organization, that invites participation and involvement from virtually all Broadcasters

Mobile500 Alliance

- The Mobile500 Alliance is a voluntary alliance of 50 member television broadcasters and 437 broadcast stations

- Current Alliance members reach 94% of U.S. television households

- The goal of the Alliance is to seek and develop strong partnerships to create nationwide availability of mobile digital television

Mobile 500 Alliance   Coverage Footprint

BROADCAST COVERAGE: 94% OF THE ENTIRE COUNTRY
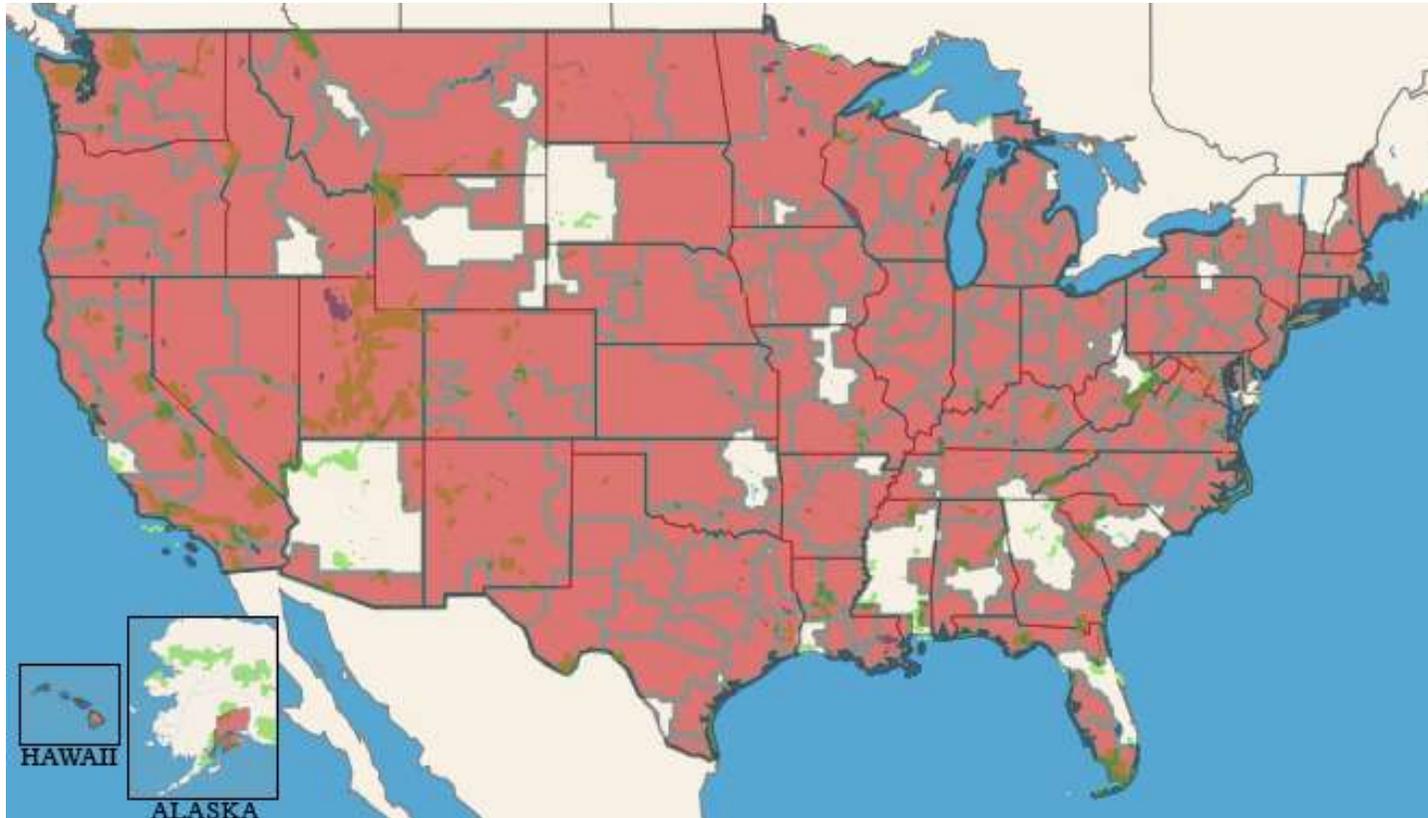
- 50 Broadcast Companies
- 437 Full Power TV Stations
- 18 of Top 20 Markets
- 48 of Top 50 Markets
- 95 of Top 100 Markets
- Over 260 Million Consumers[1]

[1] Nielsen Media Research, 2+ Persons in Covered DMAs

Mobile 500 Alliance Member Groups

MDTV is Important

- Gaining momentum around the world

- Major investors, strategic partners, advertisers, and key suppliers see a major upside for mobile video

- Extends brands to new devices, services, and audiences in local markets

- Monetizes spectrum

- Builds additional asset value

The Mobile Environment is Moving Quickly

- Consumers want more access to mobile video content

- Wireless providers can't meet demand

- Broadcast-based MDTV platform is best suited to address

- Broadcasters must work together

THE
MOBILE
500
ALLIANCE™

Mobile500 Alliance   A Comprehensive Mobile Media Service

- Anchored by DTV, augmented with Internet & 3G content
- Core, standard ATSC-M/H building blocks...
  - 100% compatible with ATSC-M/H
  - Service guide, AV streams, NRT based Widgets
- Supplemented with –
  - Subscription + Ads + PPV revenue
  - Large, integrated media + broadcast
  - Specialized clients
  - Rich Interactivity
- Resulting in a premium MDTV-based service for rich, multifunction devices

THE
MOBILE
500
ALLIANCE™

Mobile500 Alliance   Value Proposition

- Additional streams of revenue to further monetize content

- Launch additional MDTV only channels with new content

- Launch a new industry

- Assure the future and viability of your affiliates

Mobile500 Alliance   Goals For 2012

- Commercial beta launch in multiple markets

- Create an end-to-end commercial solution that M500 member companies may adopt

- Secure content distribution agreements

- Continue to add members

- Continue to light up markets

Mobile500 Alliance is now branded as:

Mobile 500 funded the development of the specific ESG & NRT server and device middleware with various vendors; matching business requirements and enabling better business for the member broadcast stations.

The MyDTV device middleware is currently being integrated into M500 broadcast member stations nationwide allowing for ATSC-M/H

- Fast To Market
- Live TV & Recording of Live TV
- Video On Demand
- Social Media Integration
- Closed Captioning
- Interactive Advertising
- Audience Measurement
- Conditional Access Ability

EXPWAY

- **Specialized in Mobile Broadcast since 2005**
  - Founded in September 2000 (12 years old)
  - Focused on end-to-end solutions (server and client)
  - Offices in Paris (all R&D), Washington DC & Tokyo
- **Experienced Development Team**
  - Credentials from implementing standards real life
    [DVB-H, DVB-SH, ATSC-MH, ISDB-Tmm,..etc.]
  - Numerous patents on metadata management
- **Highly Scientific Background**
  - Strong participation in standardization groups
    - OMA, 3GPP, MPEG, DVB, ATSC - Contributor, Editor and Chairman
  - Co-development activity with leading R&D centers
    - Research institutes, Universities and R&D laboratories, for
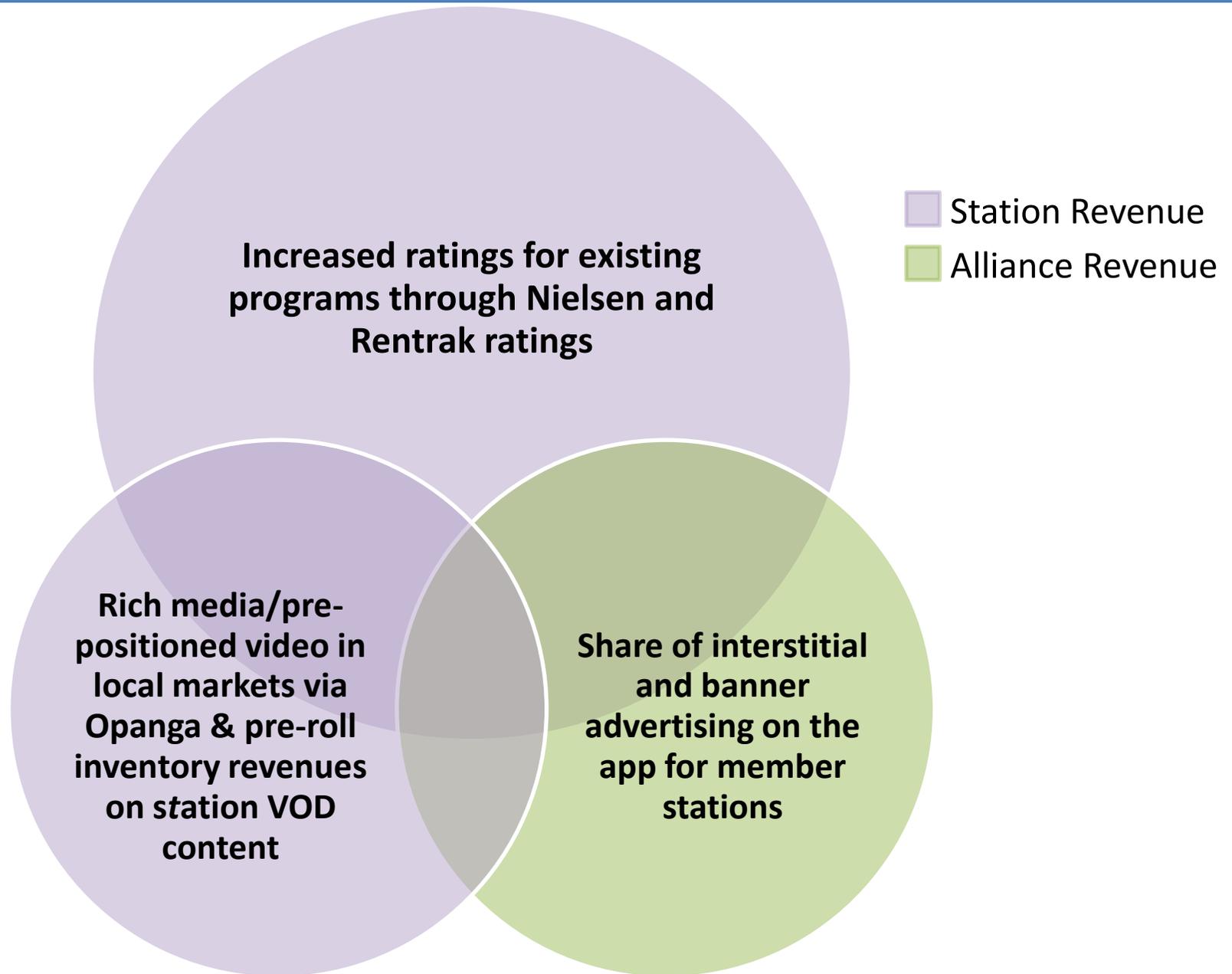   example NTT R&D and INRIA (the co-inventor of FLUTE protocol)

THE
MOBILE
500
ALLIANCE

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Mobile DTV Revenue

acceleratedmedia

- Nielson and Rentrak ratings increase for existing programing viewed on mobile devices

  - Translates to higher revenue for individual stations

- Accelerated Media sells and traffics all banner ads and interstitials within the app

  - Revenue is distributed among the M500 Alliance members

- Stations can sell their own Video On Demand content and keep the revenue

  - Pre-roll and sponsorship opportunities