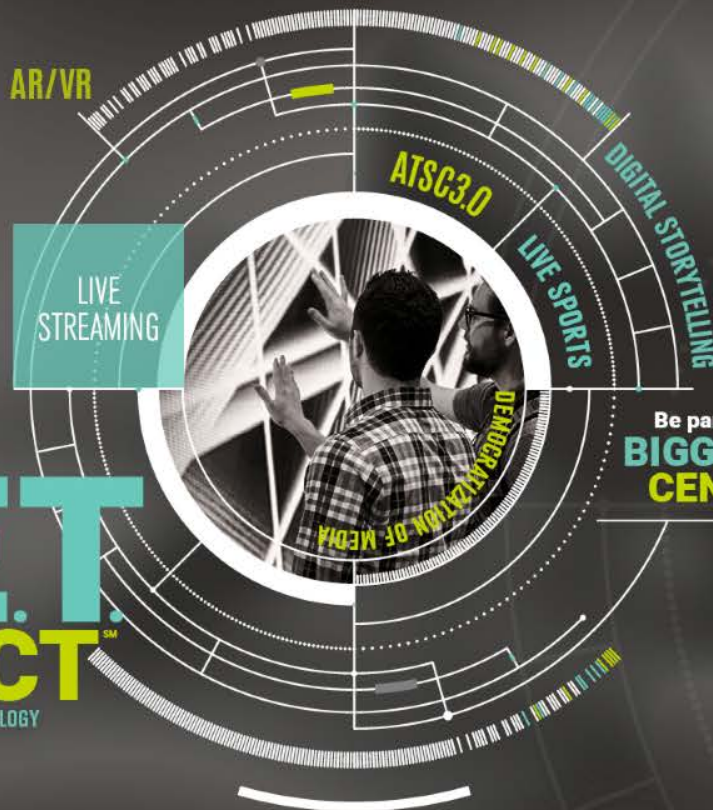


THE M.E.T. EFFECT

MEDIA. ENTERTAINMENT. TECHNOLOGY



Be part of the
BIGGER PICTURE and at the
CENTER OF IT ALL

NABSHOW
Where Content Comes to Life

#NABShow

NextGen TV

A view into the
Next Generation of the
Broadcast Business

Del Parks
SVP & CTO
Sinclair Broadcast Group

Steve Reynolds
CTO
Imagine Communications

NextGen TV

Over the next decade, television as we think of it will evolve dramatically.

NextGen TV represents an innovative update to TV

- All-IP hybrid broadcast and broadband services
- Ultra HD+HDR TV at home and on the go (mobile IPTV)
- More efficient and effective video distribution model
- More content via multiple streams
- Interactivity and addressable advertising and content
- Ancillary service capabilities driving new business models

NextGen TV

NextGen TV (ATSC 3.0)

... is a huge leap forward in technology and capabilities for local broadcasters.

Sinclair needs a sophisticated modular back end business ecosystem that drives the ATSC 3.0 IP content delivery system to support our new capabilities and business initiatives.

In a joint effort Sinclair and Imagine Communications will lead the industry transformation by launching a cloud-based content origination and localization ecosystem with dynamic ad insertion. Using ATSC 3.0, we will provide the ability for hyper-local broadcasts using a single frequency network.

The Sinclair – Imagine Sandbox Project

- Defining NextGen TV
 - Test New Business Models
 - Multiplatform Traffic
 - Data delivery, IP & UHD Payout
 - Unified Distribution
- Leverage SBG and Imagine IP, concepts, & technology
- Develop phased rollout to test, construct and support SBG's vision based on ATSC 3.0
 - Provide an end-to-end solution for multi-platform traffic, IP and content payout, and unified distribution



New Advertising Models



TV Everywhere



Multiscreen - Addressable



Cloud & Virtualization

NextGen TV Sandbox

Creation:

IP-based
Production and
Contribution



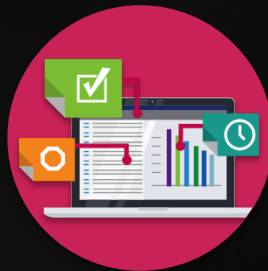
Creation:

Cloud and
Virtualized
Playout



Monetization:

Hyperlocal and
Impression-based
Advertising



Distribution:

Multi-platform
and Mobile



Connecting Advertisers to Audience

Selling Impressions

Selling Spots

Selling Non
Linear

Impressions

Spot / Inventory Pricing

Web and VOD
& Targeted
Linear

Fixed
Impressions

Fixed CPT

Cost
Per
Spot

Break
Priced

Fixed
CPP

New
Media

Non
Linear

Hyperlocal and
Impression-based
Advertising



All Inventory – All Selling Models – One Currency

Native IP Contribution

Flexible

Multi-format

COTS IT Hardware

Software media processing

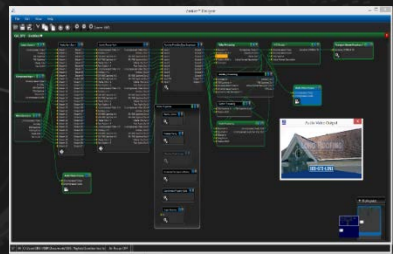
Virtualized

Hybrid cloud



IP-based Production
and Contribution

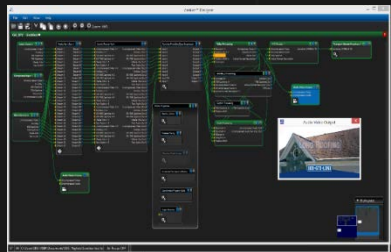
Scalable Playout to Support Local Content



**Cloud
Playout**



**Cloud and
Virtualized
Playout**



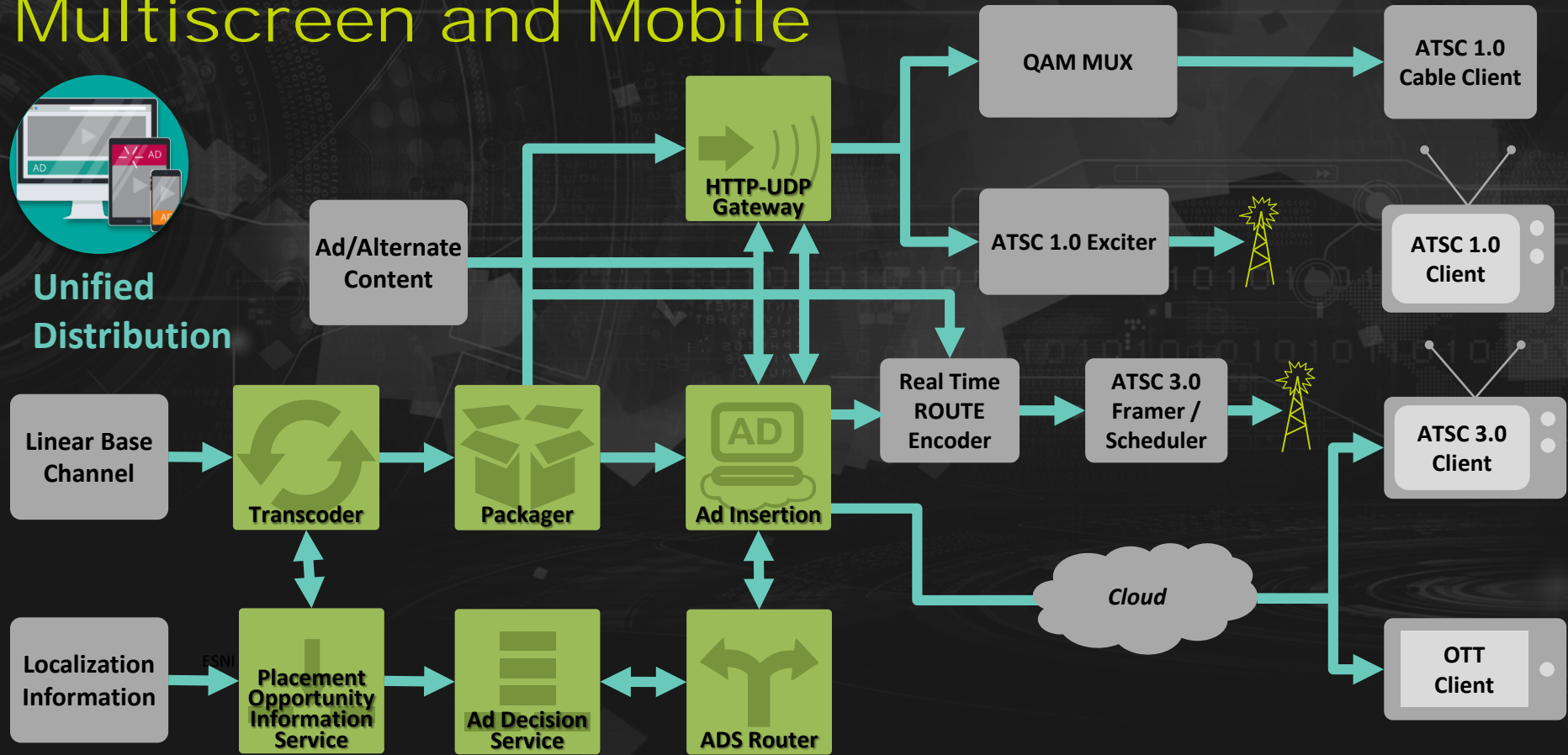
**Production
Facility**

**ATSC 3.0
Facility**

Multiscreen and Mobile



Unified Distribution



NextGen TV – What's Next?

- **Connecting People with Content Everywhere**
- **Maximize the assets and reach of broadcasters to transform and expand their business by:**
 - **Providing advertisers the ability to reach targeted audiences on all devices using new measurement and delivery techniques**
 - **Delivering data and content that is local and personal over a path that makes the most sense for the viewer or consumer**
 - **Provide enhanced public services by using the targeting capabilities of ATSC 3.0**

Sandbox Timeline

End to End IP Payout from Azure Cloud	IP to HTTP to IP Payout – Derivative Stream Creation	Ad and Content Replacement Capabilities
<ul style="list-style-type: none">• Microsoft Azure cloud for payout, networking, and distribution components• Versio as both Premises and Cloud Payout Platform• Landmark OSi with xG Gameplan for Traffic and Planning• Selenio Encoder/Decoders and Epic Multiviewer for Monitoring	<ul style="list-style-type: none">• Creation of multi zone networks with temporary usage stations• LandmarkOSi utilized for:<ul style="list-style-type: none">• Programming• Contracts• Commercial Copy• Playlists• End-To-End Payout from Azure<ul style="list-style-type: none">• Validation from WJLA to WBFF through Versio Cloud (Public IP)	<ul style="list-style-type: none">• Automated Copy import deployed with ATSC 3.0 Copy use cases.• xG Gameplan POC implemented• Optimization reports for inventory gains when utilizing an impression based spot placement engine• SBG Microsoft Express Routes set up for dedicated internet• Selenio VDE activated• Selenio Telurio Packager activated
Q1 2017	Q2 2017	Q4 2017