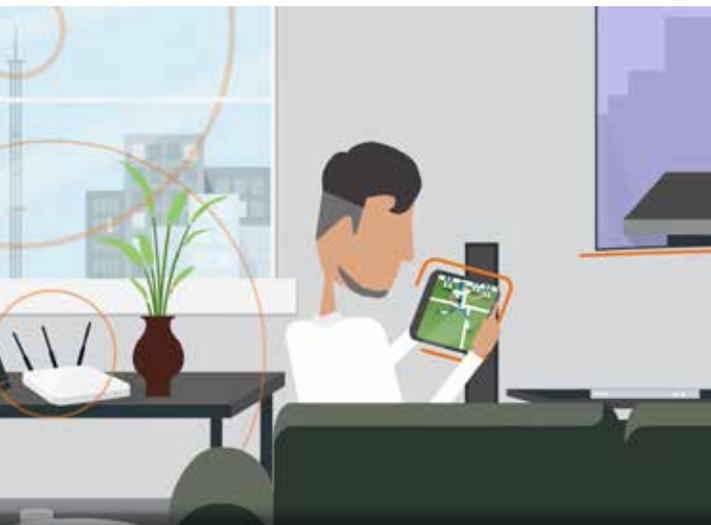




POWERED BY  
ATSC 3.0



## Your Guide to NEXTGEN TV Powered by ATSC 3.0



Consumer  
Technology  
Association™

See Show Directory Inside 



# NEXTGEN TV IS HERE. SINCLAIR IS READY!

Sinclair and ONE Media are excited to be working with the TV Broadcast Industry on a national basis. We are proud to be founding sponsors of Spectrum Co, and we are working with broadcasters in markets across the USA to provide NEXTGEN TV services.

Working with Spectrum Co and partners, we deployed the NEXTGEN 'over-the-air' Single Frequency Network in Dallas - the first and most advanced commercial broadcast network operating with 'LIVE' broadcast TV services.

Working with the Industry, 2020 will see a significant ramp-up in NEXTGEN TV deployment.

**With NEXTGEN TV,  
Broadcasting Soars to New Heights!**

## SINCLAIR

 **ONE Media**  
OPEN NETWORK ENABLED



NEXTGEN TV powered by ATSC 3.0 joins the roster of new product introductions at the CES 2020, with TV broadcasters throughout the U.S. building out enhanced television signals that will soon reach from coast-to-coast.

ATSC 3.0 is designed as a flexible and adaptable set of standards and recommended practices, easily upgraded to handle future technology developments. The first U.S. stations to sign on with ATSC 3.0 are truly leading the way for the entire country, as the capabilities of ATSC 3.0 are tested and rolled out.

The first consumer receivers designed to receive, decode and display over-the-air NEXTGEN TV broadcasts in the U.S. are at CES 2020. In addition, new miniature receivers and “gateway” set-top devices are likely to follow the first TV sets with integrated NEXTGEN TV functionality.

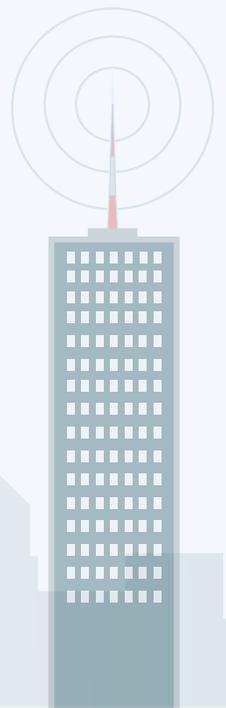
To take advantage of the growth in Internet-delivered content, NEXTGEN TV is the first broadcast standard built on an Internet Protocol backbone and it promises to deliver new choices through both over-the-air broadcasts and broadband connections.

Consumers will be able to watch broadcast content with sharper images and crisp audio quality with additional, customizable audio features such as “voice boost” and consistent audio levels. And the ATSC 3.0 capabilities of NEXTGEN TV can be upgraded for future advanced interactivity and more comprehensive and detailed emergency messages. With NEXTGEN TV powered by ATSC 3.0, broadcasting gets better and better.

**Madeleine Noland**  
ATSC President



**CES 2020 will see introductions of the first consumer receivers designed to receive, decode, and display over-the-air NEXTGEN TV broadcasts in the U.S.**



**SONY**



## Leading the future of home entertainment



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All other trademarks are trademarks of their respective owners. Screen image simulated.

[sony.com](https://www.sony.com)



# Pearl TV members and the Phoenix Model Market partners congratulate



Consumer  
Technology  
Association™



And our many partners who are about to deliver  
**Television Like You've Never Seen or Heard Before!**

See our enhanced broadcasting service and application platform  
in the ATSC booth in Central Hall at Booth 11329

[www.PearlTV.com](http://www.PearlTV.com)

[www.PhoenixNextGenTV.com](http://www.PhoenixNextGenTV.com)



# 2020, The Year of



Displaying the CTA's NEXTGEN TV logo informs consumers the receiver or broadcast service they are using delivers the upgrades, experience and interactivity of NEXTGEN TV.

Together CTA and NAB alongside ATSC members and Eurofins Digital Testing are proud to have collaboratively developed the NEXTGEN TV conformance program.

Manufacturers interested in the logo licensing program should direct inquiries to Catrina Akers, CTA Technology & Standards. Email: [cakers@cta.tech](mailto:cakers@cta.tech)

For access to the testing materials and to discuss logo certification testing, contact Eurofins.

To qualify for the logo, Eurofins Digital Testing can provide:

- Conformance testing to ATSC 3.0 Specifications and CTA Receiver Guidelines for services and devices
- Logo Certification: Test Materials and Test Harness to self-test; or Testing Services at our own facility
- Support, QA and test program management for your device's complete end-to-end development



Digital Testing

# Realizing NEXTGEN TV Today!

Business | Technology | Migration



## MOBIUS

Commercial Broadcasters

## APOLLO

NEXTGEN TV REALIZED

Public Broadcasters



**Broadcast Pipe Economics**



**1.0 to 3.0 Migration Services**



**Dynamic Ad insertion, Ad Exchange**



**OTA+OTT Workflow Convergence**



**Analytics, Targeting & Audience Measurement**



**Appstores, Apps & App SDKs**

## NextGenTV Accelerator Platform

- ✓ Broadcasters
- ✓ Content Houses
- ✓ Spectrum based entrepreneurs
- ✓ Digital Transformation Agencies
- ✓ Technology Vendors

## About

Gaian specializes in delivering impactful content experiences by applying cutting edge technology solutions in Artificial Intelligence, Machine Learning, Deep Learning to solve pan-industry challenges. Gaian systems serve over a million consumers on a daily basis.

### Our Firsts:

1. Creators of an open platform market place for ATSC3.0 & 5G ecosystem
2. First to offer NextGen TV migration as a service
3. First to deploy a hybrid DVB S2/IPTV solution on cruise ships
4. First to deliver OTT contextual sports experience with over a million downloads
5. First to deploy news and advertising localization on satellite TV channels
6. IBC award winning alerting solution for Tsunami and Ocean related weather events

## Contact us

[info@gaiansolutions.com](mailto:info@gaiansolutions.com)

+1 (415) 624-7431

[www.3o43o.com](http://www.3o43o.com)

# Find ATSC 3.0 at the Show



## Triveni Digital

[Wynn Hotel, Chambertin Room \(with Synamedia\)](#)

Demonstrating products with engineering and support for TV broadcasters for a transition to NEXTGEN TV

## BitRouter

[Westgate Resort Suite 312](#)

ATSC 3.0 set-top box and software stack



## WideOrbit

[Private Suites at Aria](#)

Showcasing media operations and content monetization platform for IP addressable targeting for broadcast TV



## Las Vegas Convention Center

### **Samsung**

#### [Central Hall 15006](#)

In the Central Hall Samsung exhibit, several models will come equipped in 2020 with NEXTGEN TV capability

### **Pearl TV & Phoenix Model Market**

#### [Central Hall 11329](#)

See how broadcasters will roll out NEXTGEN TV services, focused on the Top 40 U.S. TV markets

### **Sony**

#### [Central Hall 11329](#)

Sony, Pearl TV, and the Phoenix Model Market Partners demonstrate NEXTGEN TV services with 4K HDR content

### **IBM**

#### [Central Hall 14028](#)

IBM will be introducing our solution on NEXTGEN TV that is scalable, open and secure

### **Gaian Solutions**

#### [Central Hall 11329](#)

A platform for public and commercial broadcasters to easily launch, operate and monetize NEXTGEN TV services

### **Sinclair Broadcast Group & ONE Media**

#### [Central Hall #11329](#)

Finally, the convergence of local Over-the-Air television with Over-the-Top – NEXTGEN TV!

### **LG Electronics**

#### [Central Hall 11100](#)

As a co-developer of ATSC 3.0, LG is proud to usher in the era of NEXTGEN TV at CES® 2020

### **WiPro**

#### [Central Hall 11454](#)

Demonstrating convergence in devices with seamless switching of ATSC 3.0 content over DTT broadcast and a 5G network

### **Fraunhofer**

#### [South Hall 20654](#)

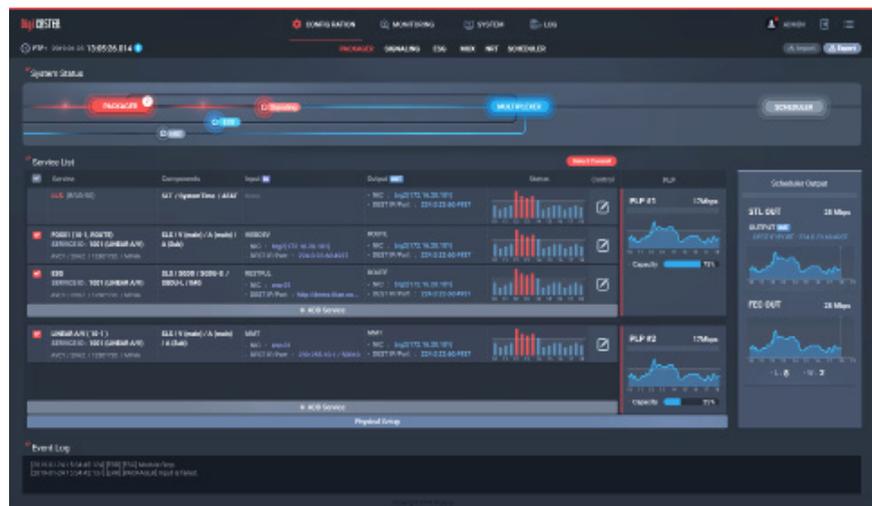
Experience MPEG-H immersive & interactive sound; on-air 24/7 in South Korea with ATSC 3.0



ATSC 3.0 Simplified

## DigiCaster from DigiCAP ATSC 3.0 Deployment Simplified

DigiCaster is an ATSC 3.0 head-end system that combines all required software components into a single RU COTS server. This highly integrated system is more efficient, and simpler to install and manage. DigiCaster takes all the digital data needed for ATSC 3.0 and bundles it into a single Studio-to-Transmitter Link stream for synchronized delivery to multiple transmitters. So you can relax...



### DigiCaster at CES 2020

At this CES, Sinclair Broadcast Group is transmitting ATSC 3.0 OTA channels using DigiCaster. Please call our personnel on site at +1 213 375 8682 for more details.

## WE'RE ALL ABOUT

COMARK

**CDS**

DIGITAL  
SERVICES

### INTEGRATION



### TRANSMITTERS

ATSC 1.0  
ATSC 3.0  
MSO FEEDS  
CDN/OTT

### DTV ENCODING

Download  
**FREE**  
White Paper  
Software-Based  
DTV Encoding  
go to:  
[comarktv.com](http://comarktv.com)

**COMARK**  
Communications

(413) 998-1100  
[Sales@comarktv.com](mailto:Sales@comarktv.com)  
[www.comarktv.com](http://www.comarktv.com)

## PROVEN PERFORMANCE AND INDUSTRY-LEADING RELIABILITY

DS BROADCAST



Get outstanding NEXTGEN TV Video and Audio Quality with professional broadcast products from DS Broadcast, which provides ATSC 3.0 Encoders, Integrated Receivers/Decoders and Upconverters for Ultra HD that allow Korean broadcasters to deliver stunning programming to viewers

- ⚙️ Remarkable Audio and Video quality for both High and Low Bit Rates
- ⚙️ Exceptional reliability, “on the air” with ATSC 3.0 in Korea since May 2017, with longer Mean Time Between Failure (MTBF) rates
- ⚙️ Supports Dolby AC-4 for U.S. broadcasts
- ⚙️ Encoder supports ROUTE / MMTP / DASH / TS

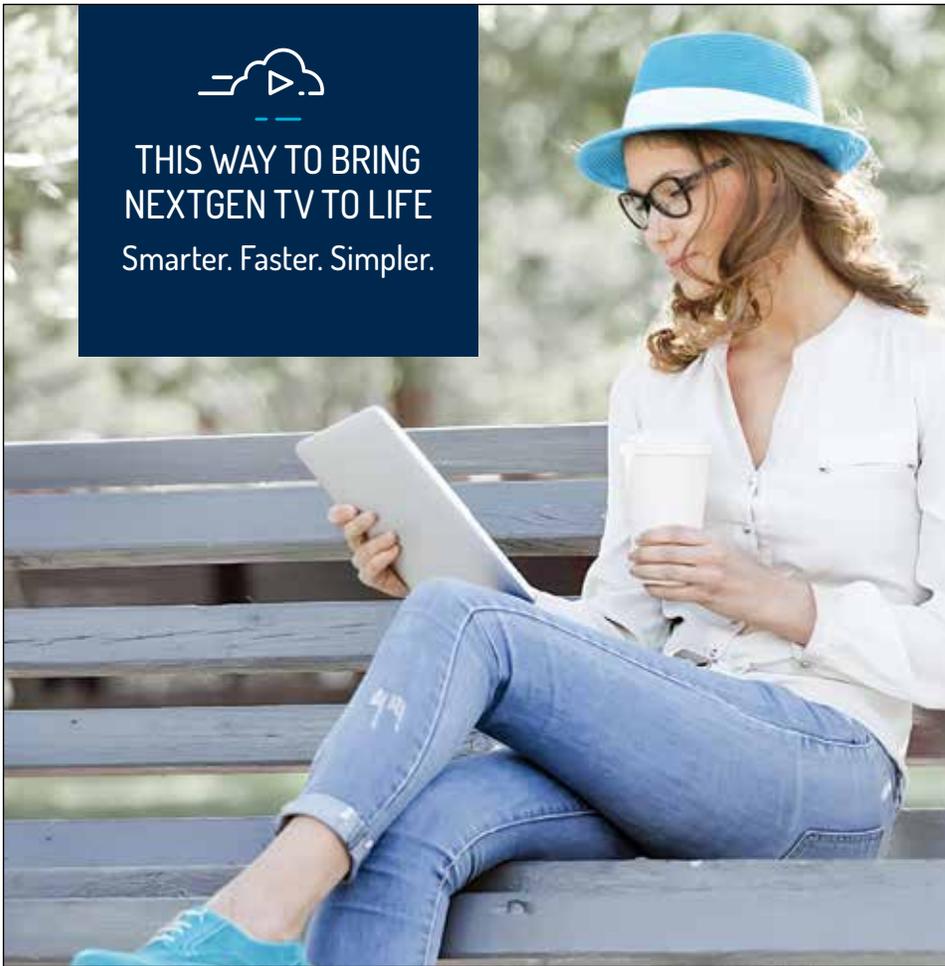
Behind the scenes, DS Broadcast is also supporting the major trials in the U.S. and will be back in Las Vegas at NAB 2020 with our products for Encoding, NEXTGEN TV Integrated Reception/Decoding, Up-converting, and Contribution Encoding/Decoding.

**For more information, contact Chris Lee at DS Broadcast:  
[chrisl@dsbroadcast.com](mailto:chrisl@dsbroadcast.com)**





THIS WAY TO BRING  
NEXTGEN TV TO LIFE  
Smarter. Faster. Simpler.



harmonic

Harmonic's market-leading VOS<sup>®</sup>360 media processing as a service empowers you with unprecedented ease and flexibility in delivering enticing, revenue-generating ATSC 3.0 services.

Launch channels in 4K HDR quality, quickly, effortlessly and with lower capital outlay and pay-as-go-pricing. Bring a personalized user experience with hybrid OTA-OTT services.

24/7/365 monitoring, targeted advertising and the most advanced video compression technology are just some of the many advantages.

VOS<sup>®</sup>360

Experience VOS360 SaaS in Action at [harmonicinc.com](http://harmonicinc.com).

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# Are You Ready for NEXTGEN TV?

We are. WideOrbit makes it easy to buy and sell media as the system of record for over 90% of local TV stations. We're ready to support ATSC3.0 with:

- ✓ IP-addressable ad targeting
- ✓ Impression-based selling
- ✓ Digital workflow optimization

**START PREPARING NOW FOR ATSC 3.0  
DIGITAL DELIVERY AND ADVANCED TARGETING.**

Contact us to learn how WideOrbit can help your station group integrate linear and digital.

[www.wideorbit.com/ces](http://www.wideorbit.com/ces)

**WIDEORBIT**

# ATSC 3.0 DELIVERY SOLUTION

Enabling **NEXTGEN TV** services



## DESIGNED FOR LIGHTHOUSE STATION

Secure bandwidth sharing & coverage with other stakeholders



AdsReach

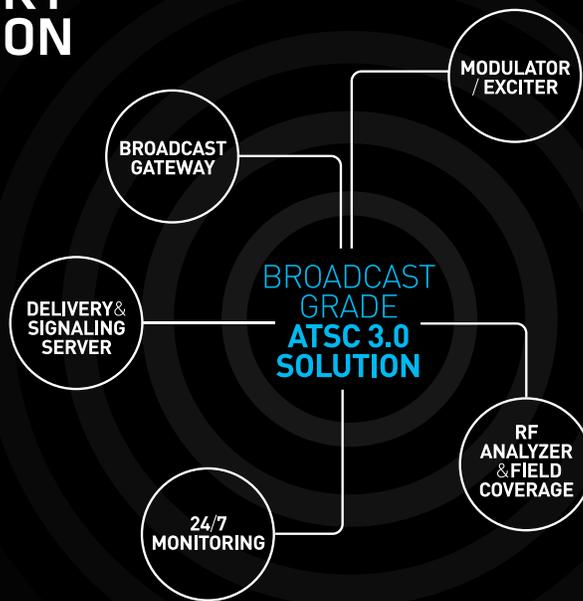
## DYNAMIC & TARGETED AD INSERTION

Fully integrated into the Ad Tech ecosystem



## EXTENSIVELY DEPLOYED

Commercially implemented  
Involved in all ATSC 3.0 pilot tests & plug fests



[www.enensys.com](http://www.enensys.com)



## GET CERTIFIED!

Ahead of ATSC-3.0 IP-enabled broadcasts coming in 2020, the Consumer Technology Association (CTA), in coordination with broadcasting companies, device manufacturers and standards engineers, developed the NEXTGEN TV logo for devices meeting ATSC 3.0 interoperability test specifications. With this logo, consumers can easily tell which devices deliver the upgrades and interactivity of NEXTGEN TV.

For logo certification and conformance testing specifications, CTA worked with numerous parties including Eurofins Digital Testing to provide a suite of new test materials and management services.

**Interested in the logo licensing program and associated certification testing?**

Contact Catrina Akers, CTA Technology & Standards at [cakers@CTA.tech](mailto:cakers@CTA.tech)



# Congratulations to the ATSC for its leadership.

The Public Media Venture Group stations look forward to supporting public media in implementing Next Gen TV to provide essential services to communities around the country.

AETN | APTV | Colorado Public Television | Georgia Public Broadcasting | Houston Public Media | Iowa Public Television | KCTS-TV | Kentucky Educational Television | KERA | KPBS | KQED | KVIE | Nebraska Network | New Mexico PBS | Nine Network | Oregon Public Broadcasting | PBS SoCal | SCETV | UNC-TV | Utah Education Network | Vegas PBS | WCTE | WETA | WFYI | WGBH | WJCT | WKAR | WNET | WOSU | WTTW

[www.publicmediaventure.com](http://www.publicmediaventure.com)



## Get the big picture

Join us at CES 2020,  
to see our ATSC 3.0  
solution for yourself

#EngineeringNXT



To know more about our  
ATSC 3.0 solution scan this  
QR code, or visit  
[bit.ly/wipro-ces2020](http://bit.ly/wipro-ces2020)

LG OLED NEXTGEN TV  
Better Picture. Better Sound.  
Enhanced Content.



**NEXTGEN TV**

With broadcasters across the country launching NEXTGEN TV services this year, LG Electronics introduces advanced LG OLED TVs with built-in ATSC 3.0 capability.

As a co-developer of ATSC 3.0, the world's first IP-based television standard that marries broadband and broadcast, LG is proud to usher in the era of NEXTGEN TV at CES® 2020.

**Booth 11100, Central Hall**

