

Before the
FEDERAL COMMUNICATIONS COMMISSION

Washington, DC 20554)
In the Matter of)
)
Authorization of, and Rulemaking for,)
Permissive Use of the "Next Generation TV") GN Docket No. 16-142
Broadcast Television Standard)
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**COMMENTS OF REMOTE TELEPOINTER, LLC
(DBA: RTP HOLDINGS)
(DBA: LOKITA SOLUTIONS)**

Charles E. (Chet) Dagit III
Founder and Managing Director
RTP Holdings LLC
124 Gulph Hills Road
Radnor, PA 19087

4/26/16



Mr. Tom Wheeler, Chairman, and Commissioners
FCC
445 12th Street SW
Washington, DC 20554

Dear Chairman Wheeler and Commissioners,

RTP Holdings LLC (“RTP”) hereby submits comments in support of the Joint Petition for Rulemaking (“Joint Petition”) filed by America’s Public Television Stations, the AWARN Alliance, the Consumer Technology Association, and the National Association of Broadcasters (“Petitioners”) seeking to authorize permissive use of the “Next Generation TV” broadcast television standard, known as ATSC 3.0

RTP is a software startup focused on innovative location-based content delivery to mobile devices. Last year I began following the ATSC 3.0 standards setting process, and have more recently gotten involved in that process. The unprecedented cooperation by a cross-industry group of broadcasters, technology companies and consumer equipment manufacturers, on a standard like ATSC 3.0, is something that deserves all of our attention.

The petitioners’ request will foster competition, and great innovation, and will provide immense value to consumers through free over-the-air advanced services, with high-end quality characteristics, that most of us can’t even image. Simply put, ATSC 3.0 allows the most flexible and dynamic use of one-to-many RF Spectrum resources ever seen.

RTP encourages the Commission to act quickly to authorize the voluntary use of ATSC 3.0 so that broadcasters may plan for and begin implementing this technology as they prepare for the modification of their transmission facilities during the post-auction repacking process. Moving forward with the proposals in the Joint Petition with utmost speed will allow the Commission to make the most of the spectrum auction process, and will allow the industry to maintain



current quality services, and add new advanced capabilities during the RF channel repack. Allowing Broadcasters to begin using ATSC 3.0 now will ensure our RF infrastructure is ready to support the changing RF allocation landscape. It will also make the US more competitive on the global stage.

I. THE TV MARKETPLACE IS READY AND IS DEMANDING NEXT GENERATION SERVICES

The Commission has indicated that in addition to defending and advancing the public interest, its goals of enabling competition, and encouraging innovation, in the marketplace are of comparable importance. In this case, the public good is aligned with engendering competition and innovation. A market driven approach will best achieve those goals.

ATSC 3.0 offers the advanced services viewers demand, such as vastly superior Ultra-HD video, impressive immersive surround audio, robust mobile content, enhanced emergency alerts, and a customizable viewer content discovery and navigation experience – all without the need for an outdoor antenna, indoor rabbit ears, or a Set-top Box.

Consumer in the US are beginning to demand 4K Ultra-High Definition (“UHD”) content, and I predict will adopt it faster than HD, and possibly faster than smartphones. In many domestic markets 80% to close to 100% of TVs sold today are UHD sets, and they are marketed as backward compatible with any new UHD video distribution standards that emerge in the marketplace. This is even though there is little-to-no UHD content available for the vast majority of these TV buyers to receive. According to a recent study by IHS, 4K UHD TV penetration in the US will hit 35% within three years.

UHD, however, is just an eye-candy sweetener. New additional free over-the-air programming services and streams, and more immersive and engaging audio experiences, combined with improved in-home reception and personalized viewing experiences will change the name of the game in television. Broadcasters will be able to provide Virtual Reality content more efficiently and effectively than fiber-to-the-home. Mobile Augmented Reality for First Responders will be much more than a science fiction possibility. Mobile Datacasting for Autonomous Vehicles will transform our highways. Mobile Video, Severe Weather Emergency Management, Natural Disaster Emergency Response, and IoT Communications will be available thanks to the “All-IP” digital transformation of the broadcasting industry.



The state-of-the-art copyright protection security that content owners require will be available for the *first time* EVER in over-the-air signals. The ability to geo-target news, weather, and other programming will better serve the public. All of these features and capabilities are available with ATSC 3.0 operating within the traditional broadcaster's existing 6 MHz television channel, so none of this will be disruptive to existing broadcast or MVPD distribution models or infrastructure.

There is wide scale industry support for ATSC 3.0 at level I have never seen in my 25 year career. The Advanced Television Systems Committee ("ATSC"), rallied over 125 member organizations from the broadcast, consumer electronics, cable, satellite, motion picture, professional broadcast equipment, computer and integrated circuit industries, and software industries to cooperate on the development of the ATSC 3.0 television standard. The standard is very well aligned with the W3C's standards (the international World Wide Web Consortium, which is a main global standards body for the Internet), so HTML5 capabilities on the front-end presentation layer are very easily implemented for a great modern-look user experience. This means global adoption is much more highly likely than with previous ATSC standards.

Moreover, the petitioning group requesting the FCC's permissive use of these ATSC 3.0 capabilities represents thousands of companies. It is amazing to see these industry associations rallied around common goals for the public good;

- America's Public Television Stations (PBS and its affiliates)
- The AWARN Alliance (Advanced Warning and Response Network)
- Consumer Technology Association ((CTA) formerly the Consumer Electronics Association (CEA))
- National Association of Broadcasters (NAB)

International support for ATSC 3.0 is strong, and global interest is growing. Allowing this new standard to get rooted in the US and emanate out to the rest of the world will provide major economic benefits, both here and abroad. Many overseas TV markets are mostly broadcast, or have highly fragmented satellite and cable MVPD infrastructures, so their demand pull for ATSC 3.0 will be even stronger than what we now see here domestically.



Korea has already moved ahead with the start of their ATSC 3.0 deployments. All major broadcasters throughout Korea are preparing for PyeongChang's hosting of the Winter Olympics in February 2018 by setting the stage for broad deployment of ATSC 3.0 next year. Field Trials were started by the Seoul Broadcasting System last December, supported by systems provided by DigiCAP, one of RTP's clients. South Korea is expected to have the first live production ATSC 3.0 broadcasting systems in the world. Please allow the US to be the second country to go live with this new technology.

Some of the Commissioners may have had opportunities to see demonstrations of these systems this year at CES or NAB. At the NAB Show's Futures Park Pavilion we showcased ATSC 3.0 broadcast signals integrated with broadband over-the-top (OTT) video, for a converged IPTV and broadcast TV user experience. We would be happy and honored to reproduce those demonstrations for any of the Commissioners who may not have already seen them first hand.

Allowance of permissive use of ATSC 3.0 in the US will make the RF spectrum bands a more valuable resource in the upcoming Spectrum Auction this summer. Delaying any decision-making in this matter flies in the face of the FCC's auction objectives. Most of us here at home think of broadcast television as last generation's consumer TV technology, but the reality is new 'business services' that are mobile first, are more likely to be the value driver setting the bid floor in the Spectrum Auction process. Bidders won't know those services are available, and their business models are real, until the Commission allows use of the new standards.

When the Commission adopted DTV it gave the television ecosystem the confidence to invest in the new technology while still using the ATSC 1.0 standard. Please expedite a similar framework in this proceeding to better facilitate the earliest possible availability of Next Generation TV services and the launch of the next generation broadcast television revolution for the American public.



II. DEPLOYING ATSC 3.0 IN ADVANCE OF REPACK IS CRUCIAL FOR REDUCING CONSUMER DISRUPTION

After the Spectrum Auctions there will be the “Repack”. Broadcasters and other successful forward auction bidders have a joint interest in a post-auction transition that proceeds effectively without consumer TV disruption. Commission approval of permissive use of ATSC 3.0 will enable an accelerated transition while reducing the industries’ costs, and adding new advanced services for consumers.

Broadcasters face an immense challenge after the spectrum auctions, and they must meet their viewers’ expectations while migrating to new frequencies. The only way RTP sees the Repack and channel migration going smoothly is to leverage the FCC’s authorized use and capabilities of ATSC 3.0. While stations are upgrading and modifying their facilities for the Repack process, they should be upgrading their infrastructure for ATSC 3.0, and using those new capabilities to ensure consumer television services are not disrupted by the Repack.

III. ATSC3 IS A LIFE-SAVING TECHNOLOGY THAT WILL PROVIDE UNEXPECTED AND UNPRECEDENTED SAFETY BENEFITS

The Emergency Alert System (EAS) is a fantastic feat of modern ingenuity! Our TV based safety alert systems are the envy of the world, and the benchmark for Emergency Alert systems design from Singapore to Tel Aviv. I have had first hand experience with EAS’ life-saving benefits keeping my family safe, so I feel great passion for this topic. ATSC 3.0 offers life-saving advanced EAS functionality that most public safety officials have not yet dreamt of. It can wake up sleeping devices to make them alert for danger when their owners might be asleep. It has dynamic real-time messaging so that you don’t have to be watching the TV “when the emergency alert is scrolling on the screen.” It allows for micro-location delivery of emergency alerts to mobile devices in indoor environments so that if an Amber Alert goes off in the shopping mall you’re in, where an abduction is occurring, you might be able to spot the victim and notify the authorities as the incident is happening.



The new alerting system will not only will save the lives of the public, it will also provide videos, photos, maps, floorplans, and data to public safety officials involved in emergency response. When a catastrophe strikes the public wireless cellular network often fails, or is taken down intentionally. When it stays up, it can be bogged down with too much cell phone traffic. First Responders need a network that is always on, and that is the broadcast network. ATSC 3.0 can allow broadcasters to allocate their bandwidth to First Responders as needed, dynamically, during a state of emergency.

IV. CONCLUSION

The TV viewing public will benefit from the advanced services and features possible with ATSC 3.0, but that is just the tip of the iceberg. The marketplace is ready, here and abroad. The advanced services we are about to see are going to be mind-blowing! The spectrum auction, the repack, and the economics of the channel migration, and the consumer impact of all three should be major considerations. But most of all, ATSC 3.0 will be life-saving. RTP encourages the Commission to allow US broadcasters to get on with their future by quickly adopting rules for, and authorizing the voluntary use of, ATSC 3.0.

Respectfully submitted, RTP Holdings.
_____/s/_____
Chet Dagit,
Founder and Managing Director
124 Gulph Hills Road, Radnor PA 19035
Phone: 267.438.3037



Best Regards,

Chet Dagit – Founder and Managing Director – RTP Holdings – Lokita Solutions

