

Talking broadcast & tech with Madeleine Noland, newly appointed President, ATSC

Question: Congratulations on your recent appointment as president of ATSC. What are you spearheading at ATSC?

Noland: ATSC is committed to helping usher in the 21st century ecosystem for DTT broadcasting. As we mark the 10th anniversary of the analog shut-off (June 2009) we can reflect on how the first digital standard served to lift all boats. Content producers had new story-telling tools such as high definition video, broadcasters gained new business models such as multicasting diginets, TV makers were busy offering flat panel HD TVs, MVPDs were offering upgrade packages, and equipment and tech vendors were supplying the industry with everything needed to bring these new benefits to life. Now with ATSC 3.0 we have an opportunity to build on – and even surpass -- that success. We again have the potential to lift all boats. Content producers will have great new story-telling tools such as high dynamic range, yet more pixels, multiple audio tracks, interactivity and more. And broadcasters will have new business opportunities, such as offering yet more services, linking OTA and OTT, mobility, and thanks to the security technology, the ability to protect against “man in the middle” attacks and offer high-value content.

And while we are laser-focused on the initial deployment of ATSC 3.0 in the U.S., ATSC is also setting its sights ahead. Almost 10 years ago, ATSC had the foresight to begin work on ATSC 3.0 and delivered the standard in lock step with the industry’s need for such an advancement. ATSC will continue that practice of identifying key future needs to stay on the vanguard of digital terrestrial broadcasting technology.

That is the 10,000 foot view, and as you can imagine there are many activities within ATSC to support this vision.

Question: Clearly, ATSC 3.0 is vast; how does the organization wrangle all of the information and options into a state where it can be useable?

Noland: We are taking learnings from early field deployments as well as plug fests to identify and fill in additional guidance for implementers. ATSC Technology Groups are working on Recommended Practices and Technology Reports with several documents already complete and several more in the works. And ATSC Implementation Teams have published the Advanced Emergency Information Implementation Guide with another Guide in the works for the interactive system.

Question: Do you have a view of the next several years as Next Gen TV powered by ATSC 3.0 is commercialized?

Noland: We are very excited by the announcement of deployment in the top 40 U.S. markets in 2019 and 2020 – actually 61 markets in all. In the near term, we are 100% committed to supporting these deployments every way we can. We want to help bring to life the business models and consumer benefits that broadcasters envision for Next Gen TV. This may start with broadcasters’ initial service offerings and grow quickly to add more and more of the capabilities that the ATSC 3.0 system enables.

Question: The way we consume broadcast has drastically changed in the past decade or so. What additional changes do you anticipate?

Noland: ATSC 3.0 was designed from the ground up to be aligned with Internet technologies. It is currently the first and only digital terrestrial broadcast system that uses Internet Protocol – or IP – for data delivery. The IP backbone paves the way for hybrid OTA/OTT use cases, which can include delivering supplemental parts of a service via OTT, like alternate language audio, but it also paves the way for ATSC 3.0 to be an integrated part of a larger ecosystem of IP data delivery networks that includes, for example, 5G/LTE, WiFi and Bluetooth as well as OTT streaming.

Question: How do you anticipate the broadcast industry changing in relation to emerging technologies like 5G, blockchain or artificial intelligence, or one of the many new ‘realities’, i.e., augmented reality, virtual reality, digital reality.

Noland: The flexibility of ATSC 3.0, together with its underlying IP backbone, enables integrations and connections with other systems that can foster a global outlook of scale and innovation for our industry. We can envision 3.0 digital terrestrial broadcasting as a very large IP data delivery pipe – and with broadcasters cooperating with one another, it becomes a very large *nationwide* IP data delivery pipe. That IP pipe can be used to deliver television services and any other kind of data, for example, map updates to cars. With the flexibility of ATSC 3.0, broadcasters are busy pursuing a wide variety of scenarios. We could see convergence of ATSC 3.0 with other IP-based delivery networks; we could see broadcasters using hybrid OTA/OTT to bring new experiences to audiences; we could see broadcasters entering new sectors such as automotive. Our goal is to support these use cases as each broadcaster pursues the scenarios best suited to their particular business’ goals and community’s needs.

Question: How did you end up working in standards and what would you recommend about it to a young professional?

Noland: As a Music Education graduate, I didn’t start out in technology or standards development, and so you can imagine my path to working in standards may be somewhat unusual. My advice to a young professional, no matter what your background, is to be curious about the little opportunities that crop up all around you. You never know which connection you make, which mini-project you say “yes” to, which mentor you have coffee with, which article you read, etc. will become something that sparks the next bigger opportunity.

Question: How would you say that ATSC and IEEE BTS complement each other?

Noland: I like to think that IEEE BTS and ATSC are close partners, sharing the goal of strengthening the international broadcast industry. I am happy to be an IEEE BTS Distinguished Lecturer and ATSC is actively support the society’s ATSC 3.0 education efforts. We look forward to continuing the strong collaborative relationship.

Question: As a distinguished lecturer for IEEE BTS, surely you’ll speak about ATSC 3.0, but what areas will you focus on?

Noland: I am honored to be included among the IEEE BTS distinguished lecturers. I truly enjoy speaking – I guess it’s the teacher in me. And to that end, it’s important to tailor any speaking opportunity to the audience. ATSC 3.0 will certainly be a focal point in many cases, and we can

hone in on various aspects of the standard and ecosystem according to the audience. But as I mentioned before, ATSC hopes to remain on the cutting edge of broadcasting technology, so we'll have to "stay tuned" to find out what other topics of interest to our industry might arise!

Question: What would you most want a young professional coming into the broadcast industry to know?

Noland: Terrestrial broadcasting is a 21st century technology and media industry. Young professionals with backgrounds or interest in social media, IT, computer science, marketing, journalism, IP networking, systems integration, business, engineering and more will find tremendous opportunities in broadcast. We not only look to young men and women as we move forward, we *rely* on them to help usher in the potential of the global terrestrial broadcast ecosystem.

Question: In 2008, CBS CEO Les Moonves said: "Why not break the bond with the affiliates and go directly to cable? It is something that down the road could happen." What happens when CBS, NBC, et al start phasing out their affiliate networks? And how does ATSC 3.0 help those stations survive and thrive?

Noland: We don't know what the future will bring for the network-affiliate relationship. In some cases, we see quotes such as from Les Moonves, and in some cases, we see networks strengthening their O&O presence and "doubling down" on live news and sports. ATSC 3.0 allows stations to be nimble. The flexibility and evolve-ability of the standard will allow broadcasters to react to market changes as they arise. ATSC 3.0 can provide the flexible foundation to allow broadcasters to be creative as they shepherd their businesses into the future.

Question: Another issue stations are dealing with is retransmission fees. ATSC 3.0 enables pay-per-view, but where will stations get the content to sell if the networks decide to go direct?

Noland: Given the recent data suggesting that cord cutting is on the rise, broadcasters are most likely already discussing retransmission revenue in their boardrooms in any case. Our goal is that ATSC 3.0 is part of those conversations so that broadcasters can consider the range of opportunities that might fit within their business goals.

Question: Is OTA's growth as a byproduct of cord-cutting sustainable long term and where does ATSC 3.0 fit in with that?

Noland: ATSC 3.0 was not conceived to be an agent of change to the broadcaster-MVPD relationship. ATSC deliberately and consciously avoided technologies that might preclude a business discussion about any given feature. We envision that 1.0 and 3.0 broadcasters alike will continue their business relationships with their MVPD partners. Market forces may influence those relationships, and ATSC 3.0 may provide broadcasters with some resilience as market shifts occur, but at its heart, ATSC 3.0 is technically agnostic on this issue.