



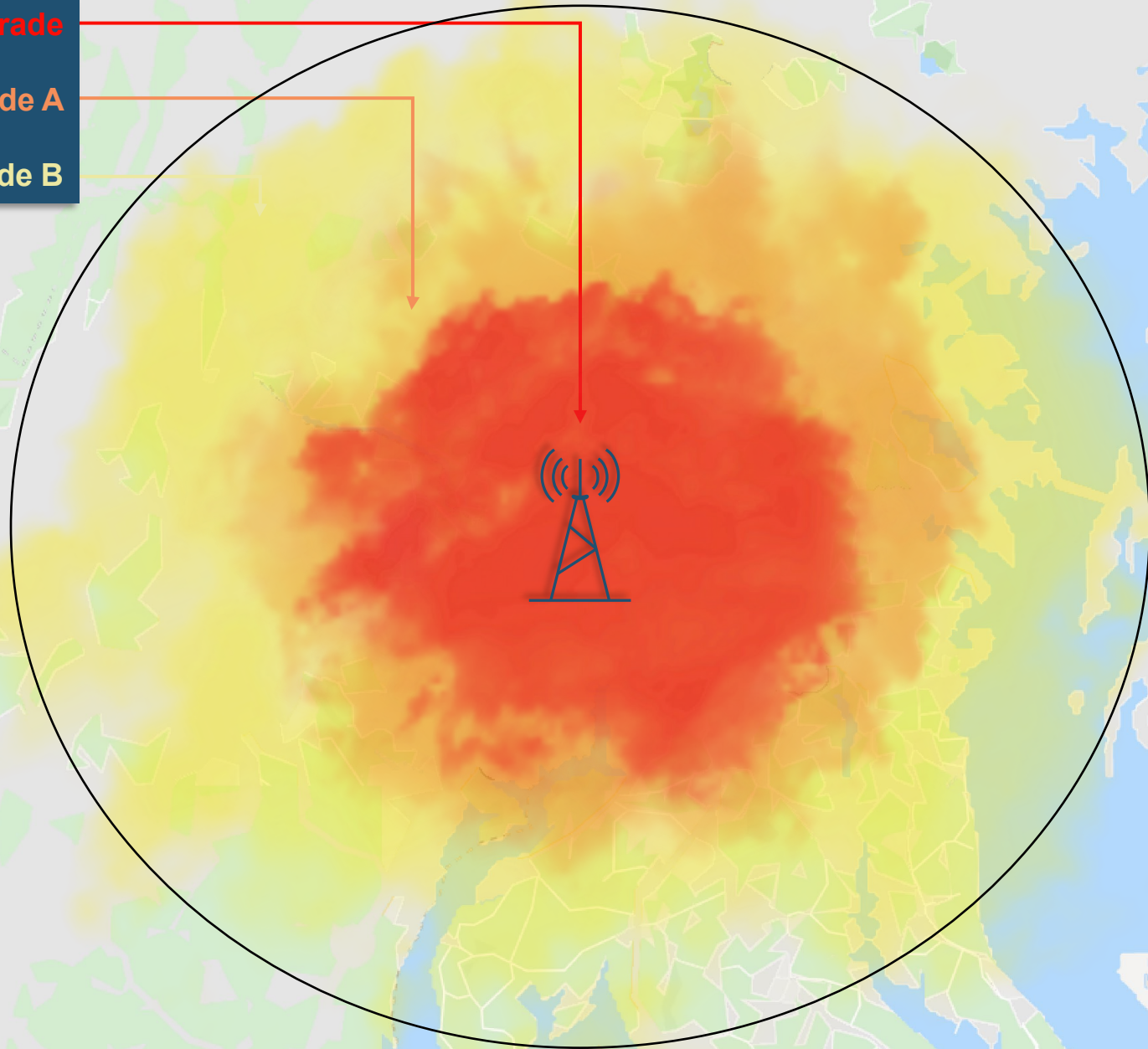
BETTER SIGNAL, BETTER SERVICE:

ATSC 3.0 & Single Frequency Networks

2020



- City Grade
- Grade A
- Grade B



Coverage ≠ Service

Currently, television stations broadcast content from a single tower in a DMA.

Basic laws of physics mean that the further one is from the tower site, the weaker the signal.

Add to that ridges and hills, tall buildings, and even trees, and the signal quality is reduced even further.

- Good OTA reception
- Poor OTA reception

Losses Add Up

Broadcast signals from a single tower cannot penetrate buildings or reach a receiver closer to the ground (i.e. a mobile phone or a car) outside the area close to the tower.

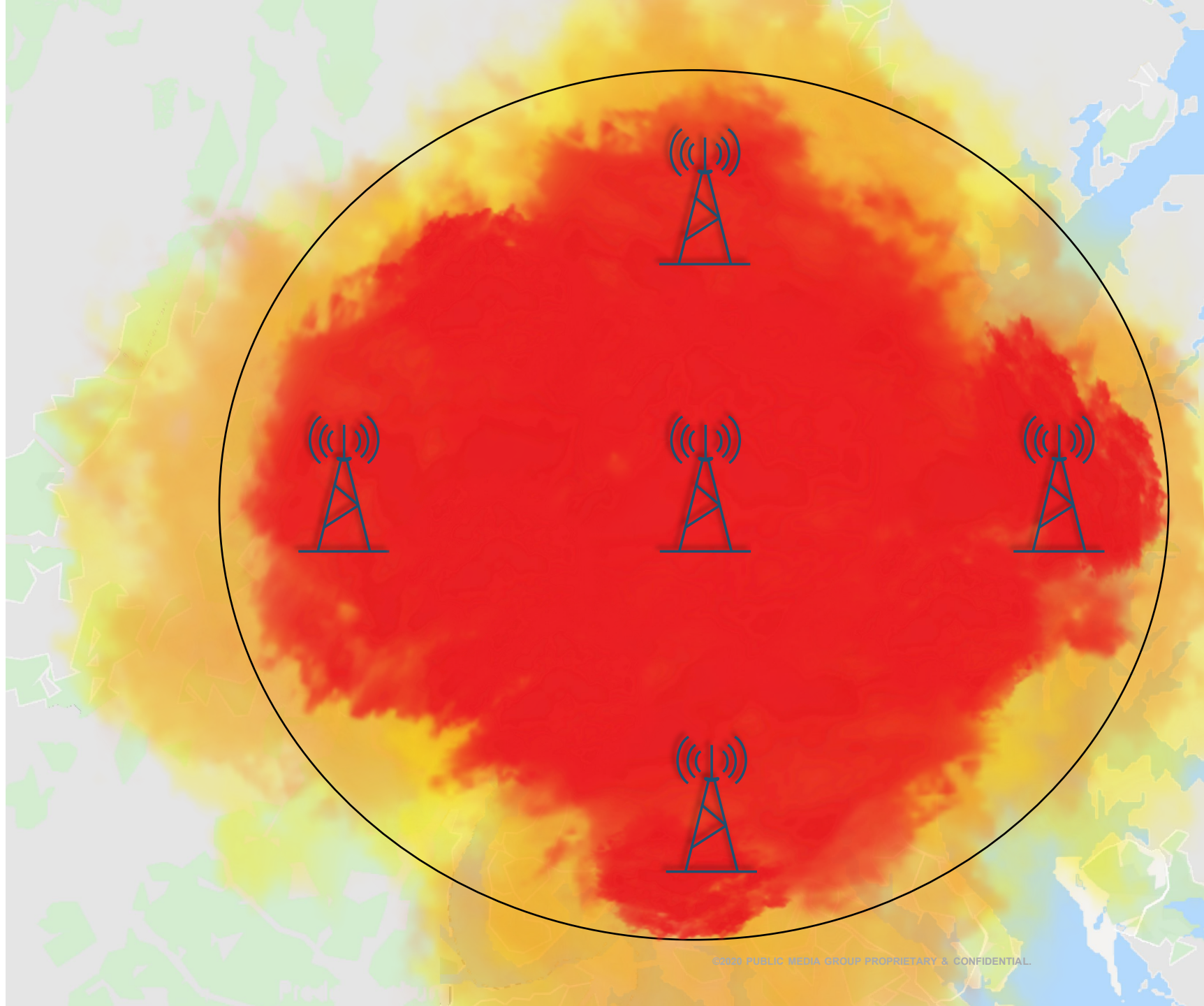




Better Service with SFNs

SFNs are a broadcast network where several transmitters simultaneously send the same signal over the same frequency channel.

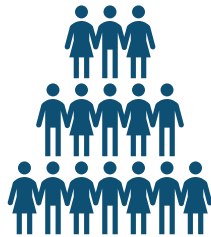
By virtue of engineering enhancements made possible through the new broadcast television standard, ATSC 3.0, the signal sent out from the multiple transmitters within a single market is synchronized, which enhances the signal, providing a more **consistent, reliable signal throughout the market area.**



Consistent, Reliable Signal is Key to New Opportunities

The improved signal provided by SFNs allows broadcasters to do two things:

Reach more people



&

Reach more devices



This allows broadcasters to improve and increase traditional services, while also creating new services and revenue streams.



Software and cyber security updates



Unique interactive content to mobile devices



Geo zoned and targeted content



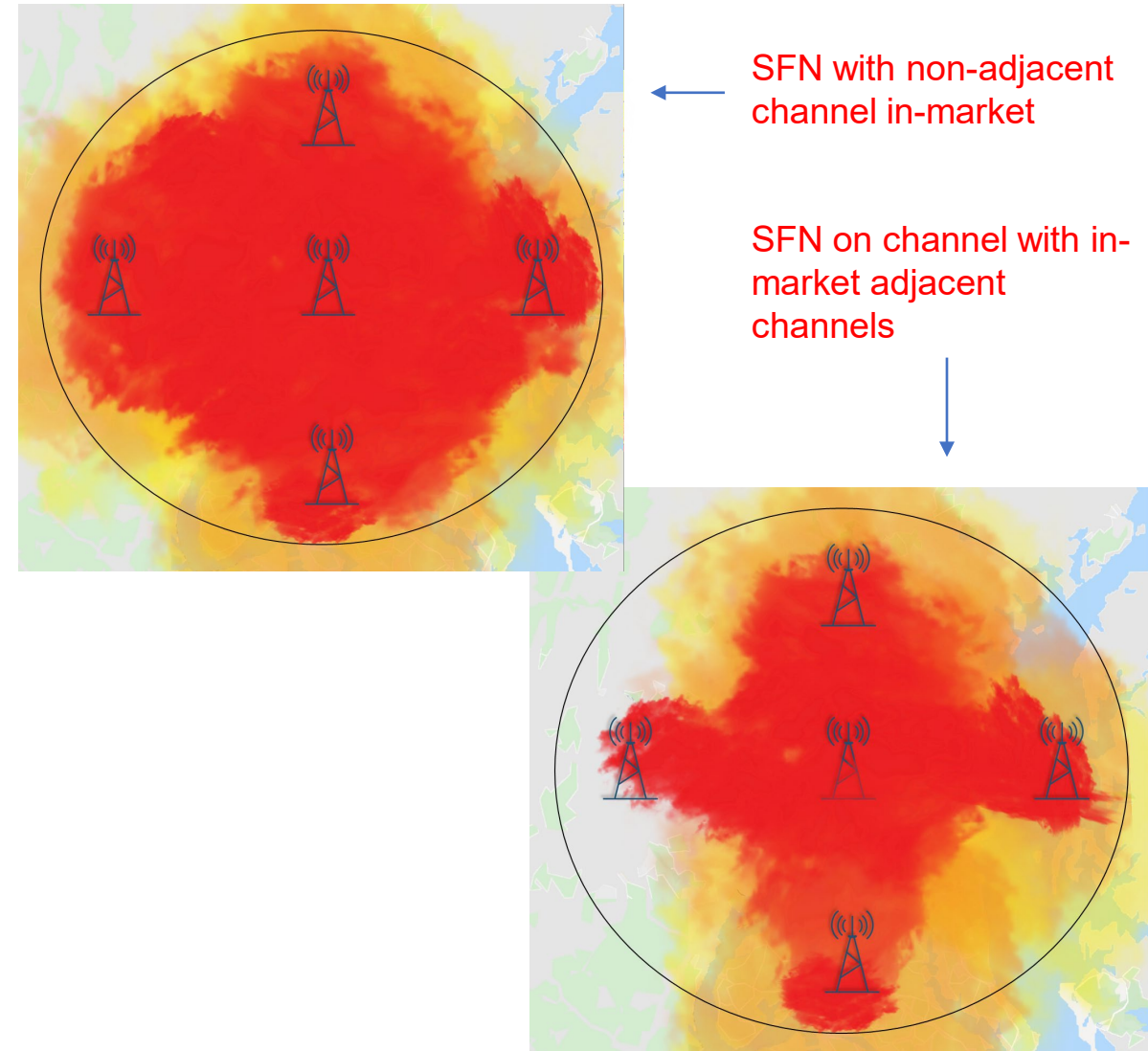
Public Safety



Distance learning

Transition to ATSC 3.0 with SFNs in Mind

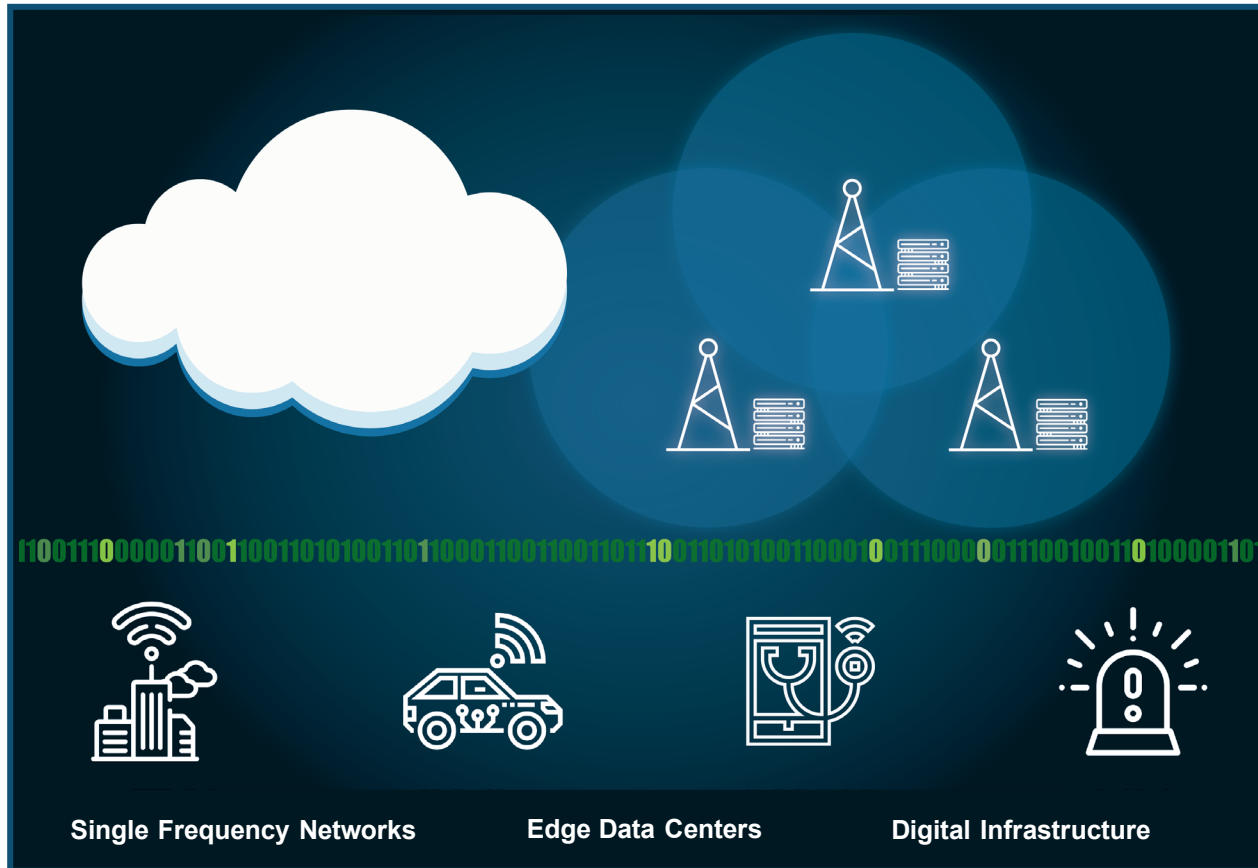
- When transitioning a market to ATSC 3.0, it is important that stations perform preliminary engineering to ensure the possibility of an optimized SFN.
- SFN designs must meet FCC rules regarding adjacent channel protection. If the wrong hosts are selected, interference from outer SFN locations will create adjacent channel interference to in-market adjacent channels operating without SFNs.
- The result of poor initial planning is that the SFN's power will need to be turned down, thereby limiting the opportunities to reach more people, more devices, and generate more revenue.





Public Media Group (PMG) is a technology infrastructure platform deploying a nationwide data ecosystem and distribution network based on the broadcast industry's new IP-based ATSC 3.0 standard (NextGen TV).

Transforming broadcast infrastructure



Data Distribution Benefits

- Low Latency
- Cost Effective National Deployment
- Enhanced services to communities
- Ability to Maximize Broadcast Spectrum's Value
- New Revenue Models for Broadcasters

Media Content Benefits

- Better consumer experience (Ultra High Definition)
- Increased Reach and Signal Density
- Mobile Enabled
- Targeted Content / Advertising

Thank You!

We're here to help! Please reach out with any questions regarding the ATSC 3.0 transition and SFNs.



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