



A Short Introduction to ATSC 3 Security Systems for Broadcasters

The ATSC 3 standard provides three fundamental cyber-security features to protect broadcasters and viewers in this Internet age.

Signal signing ensures the signal being received is from an FCC licensed broadcaster and that the information received has not been tampered with. Because 3.0 is essentially a broadband system, this authentication technology is derived from the security we experience on the Internet today.

Application signing is the same authentication technology as signal signing, but, applied to applications. Applications must be signed by the author/developer and separately by any broadcaster transmitting the app.

Content security utilizes the same encryption technology used by Internet streaming services. Until now, broadcasters have been at a disadvantage, never being able to prevent signal and content theft. It is one of the great advances in ATSC 3.

Signal and application signing are required in ATSC 3. Content encryption is optional, but is commonly required by media companies in their distribution agreements.

What should broadcasters do?

To get started with signing, host broadcasters need to apply for signing certificates ASAP. These certificates work for all stations on a Lighthouse. Receiver manufacturers have already started to check for signatures. Depending upon a consumer’s settings, a receiver may decline to display an unsigned station’s content. For applications, many receivers will not launch an unsigned or improperly signed application.

To get started with encryption, every broadcaster, not just Hosts, needs to register with A3SA to obtain the necessary credentials.

Annual Security Costs for Planning Purposes					
Signal Signing	Application Signing		Content Encryption		
	Author	Distributor	Small Market	Middle Market	Large Market
\$998.00	\$499.00	\$499.00	\$1,000.00	\$1,500.00	\$2,000.00

Heartland Video Services offers optional assistance with installation of the signing (\$250.) and content protection (\$850.)

Additional Information is available from admin@A3SA.com including more complete executive level and technical descriptions and the engineering Application Note - Preparation for NextGen TV Signal Signing.

A3SA

The ATSC 3.0 Security Authority was created by the major networks and large broadcast groups, in consultation with the Consumer Technology Association (CTA), to implement these ATSC standards. A3SA is developing the necessary infrastructure and governance to support their adoption, bringing these capabilities to the content creation, broadcast and consumer electronics industries and for the protection of our viewers.