

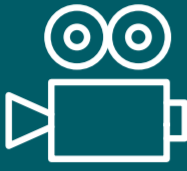
SMPTE ST 2110 FUNDAMENTALS

WHAT IS IT?

SMPTE ST 2110 is a groundbreaking suite of standards for IP transport in media workflows. Designed to break apart video, audio and ancillary data into separate streams, ST 2110 enables truly flexible IP-based workflows for real-time production, playout and other professional media applications.


With ST 2110, manufacturers can create products that work together seamlessly and ensure the interoperability that media companies need to make a smooth transition from SDI to IP.

THE SMPTE ST 2110 SUITE




2110 for Video (ST 2110-20/21)

Transports uncompressed video and prevents high-bitrate video streams from causing congestion in IP network "pipes"




2110 for Audio (ST 2110-30/31)

Transports uncompressed PCM and compressed AES3 audio over IP networks



2110 for Ancillary Data (ST 2110-40)

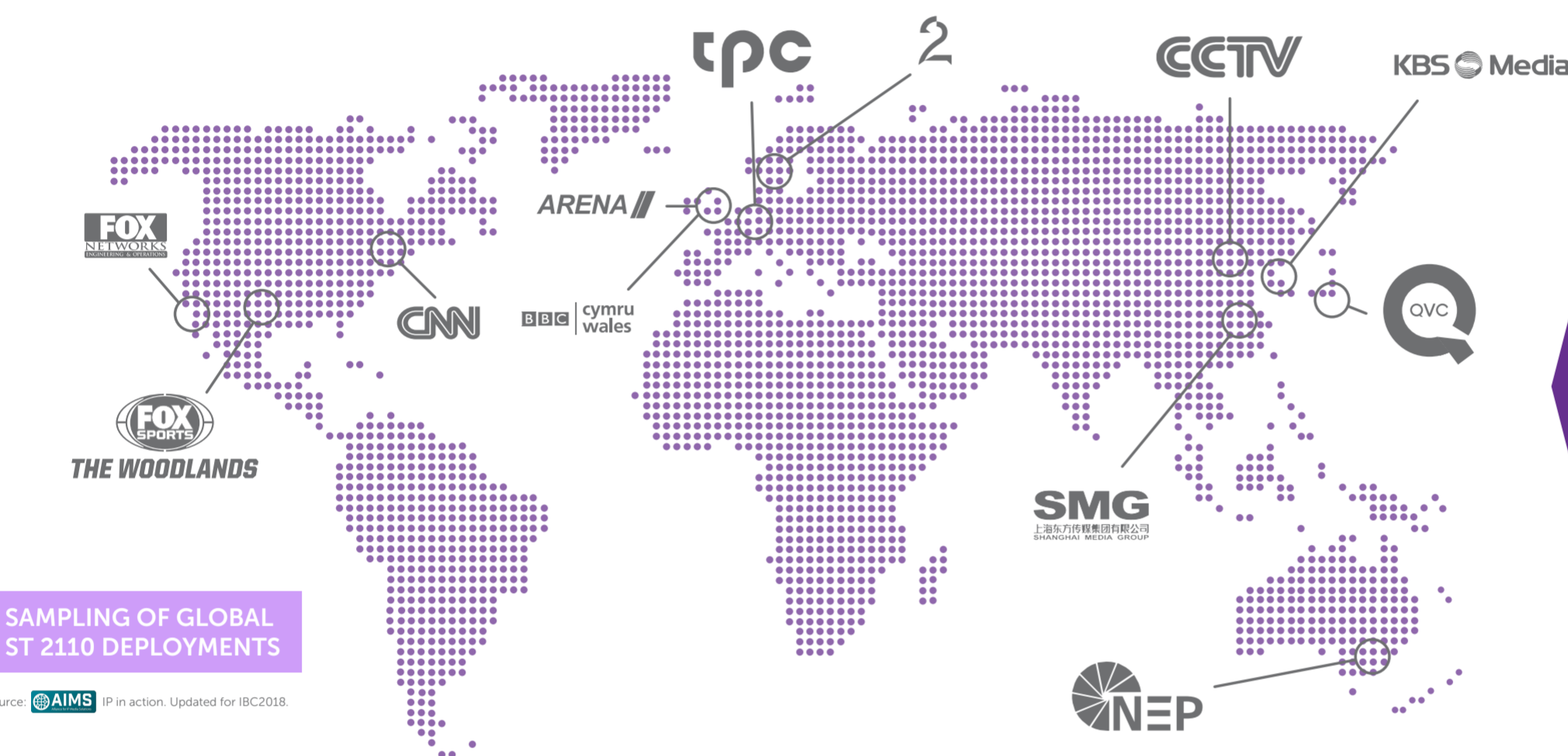
Transports uncompressed PCM and compressed/uncompressed AES3 audio over IP networks




2110 for System Timing (ST 2110-10)

Synchronizes multiple media types at any point along the broadcast chain


REAL-WORLD ROLLOUT



SAMPLING OF GLOBAL ST 2110 DEPLOYMENTS

3. Source:  IP in action. Updated for IBC2018.

200+ installations



have been successfully deployed using SMPTE ST 2110 and its predecessor, SMPTE ST 2022-6¹

BUSINESS BENEFITS

Flexible Workflows

Route and work on video, audio and data streams independently

Maximum Efficiency

Increase resource utilization via efficient distribution of dedicated workflows

Future-proof Investment

Maximize infrastructure lifespan with format-agnostic technology

Assured Interoperability

Simplify deployment of multi-vendor IP solutions

Reduced Bandwidth


Use bandwidth more efficiently when transporting uncompressed video

When ST 2110 is used to transport uncompressed video, **only the active part of the image is sent** — leading to bandwidth savings of


UP TO **30%**

compared to SDI and ST 2022-6²


APPLICATIONS




Film/Broadcast/OTT production & postproduction




Museums (large audio/video displays)




Media research




Theme parks (show control, image, & sound)




Digital advertising




Contribution



Live event production




Digital release production & postproduction




Primary distribution

WHAT'S NMOS GOT TO DO WITH IT?

The Network Media Open Specifications (NMOS), developed by the Advanced Media Workflow Association (AMWA), **make a 2110-based infrastructure manageable.**



The specifications describe how devices on a network can **detect each other and available streams**



And make it easier to build IP production facilities **by automating configuration of device connectivity in all environments.**

Sources:
1. Source: TVB Europe, AIMS interview. Sept 2018.
2. Source: Net Insight, "What is SMPTE 2110 and NMOS all about?"