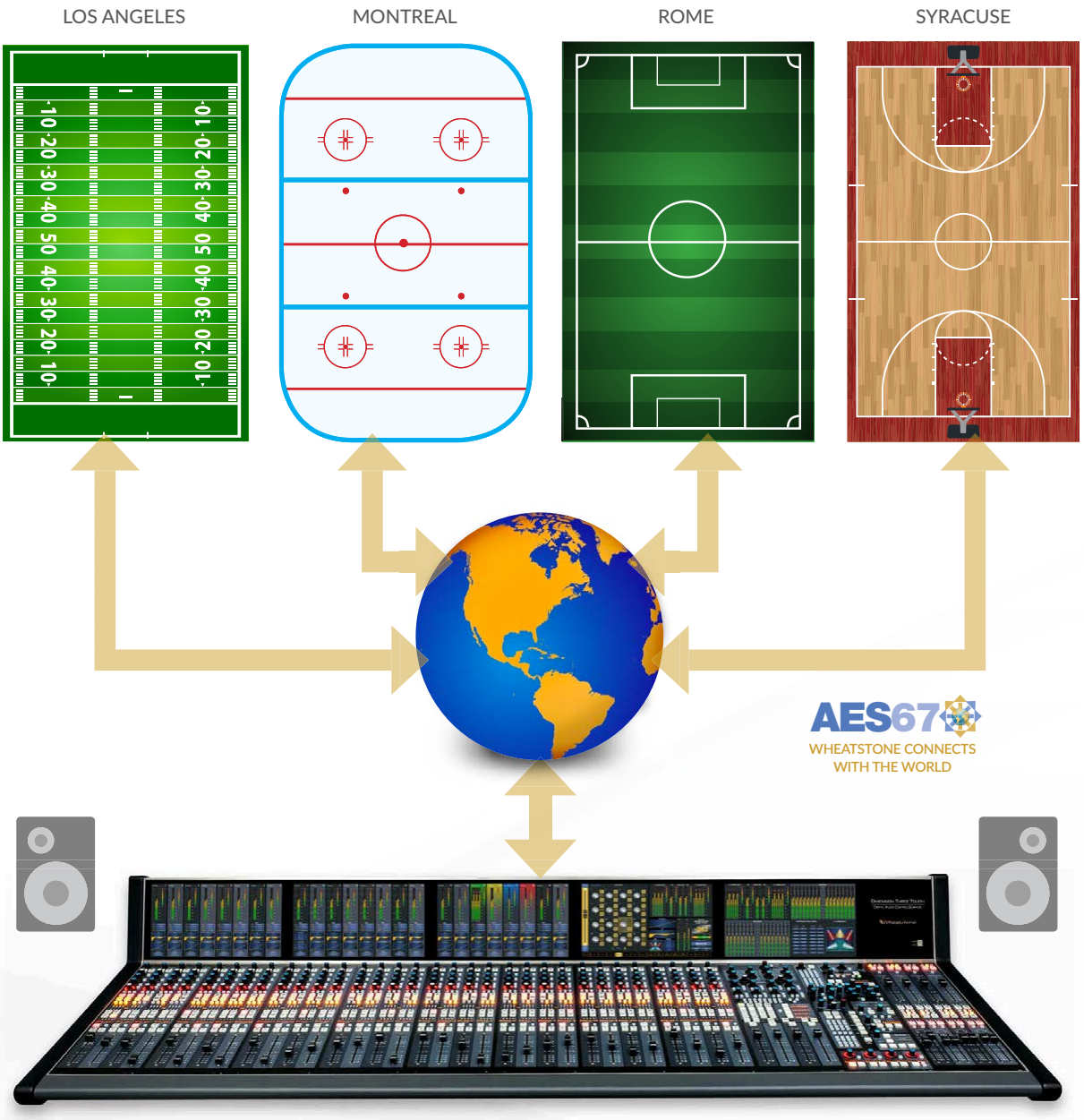
AT-HOME PRODUCTION

REMOTE INTEGRATION MODEL



MIXING CONSOLE At-home CONTROLS AUDIO AT REMOTES

Wheatstone

BROADCAST AUDIO PERFECTIONISTS®

Mix All Your Remote Games From Home with IP Audio

the processing that powers modern television audio consoles – brains, brawn and futurability

Live remote productions, aka “At-Home” or REMI (remote-integration model) productions, are growing in popularity because they save money and enable more live productions to be created using the same staffing. Based on Wheatstone’s WheatNet-IP network, where super-smart BLADE-3 interfaces can deploy dozens of audio services, as well as provide multiple control and automation capabilities, this system offers new ways to manage and automate audio for live remote productions.

The system offers the following capabilities:

- AES67 connectivity with other devices (including AES67 time stamping to allow the video provider to sync audio and video if desired)
- Ability to locate the mix engine either at the remote site (where it can be controlled remotely) or at the home production center
- Multiple ways to provide local mix-minus creation at the venue side (no latency) which can come from a BLADE interface on site controllable via a local GUI on site or remotely from the home control center
- Local or remote control options (as above) for microphones; mute, mic gain control, audio processing, etc. (ex: sweeten the sound of interviewers’ mics)
- Preset utility mixers can handle intercom connections, which can be remotely adjusted – IFBs can be set up in advance through utility mixers built into every BLADE interface
- Audio events can be automatically triggered by audio (i.e. opening an announcers mic opens the panelists mics as well)
- Hot switching between audio sources (assign any remote source to any channel on your board).
- You can even save scenes on pages and be ready to go to the next remote at the push of a button
- Automatic switching to a back-up channel with silence detect

Media Transport...

To demonstrate all this and more at the New York show, Wheatstone is collaborating with Artel Video Systems, provider of innovative IP- and fiber-based media transport solutions, to create a WAN between two Cisco switches. The WAN uses Artel’s InfinityLink IL6000 broadcast media transport chassis equipped with an ILC205 9 Port Gigabit Ethernet Switch with VLAN and the ILC103A 3G/HD/SD-SDI, ASI Transmitter/Receiver. “Artel continues to demonstrate the applicability of its product line,” says Rafael Fonseca, Vice President and Director of Product Management at Artel Video Systems. “In this case, the versatility and application ‘reach’ of the InfinityLink platform in support of solutions addressing workflow costs and efficiencies are demonstrated.”

The whole concept here seems revolutionary, and it is. But as with most revolutionary ideas, the core notion is really quite simple. Extend the snake (and make it a lot smarter)!

For the example pictured, Wheatstone provides several M4-IP USB boxes, each capable of 4 mi c inputs, with the ability to provide professional grade audio processing on the spot. These M4-IPs are used to handle talent/announcer mics, ambient parabolic field mics, handheld interview mics, wireless mic systems for referees on the field (and any other wireless systems needed), AND they create the mix-minuses that facilitate zero-latency IFB.

How it handles IFB...

With the utility mixers built into Wheatstone’s BLADE-3s, mix minuses for IFB can be created at the remote site, meaning there is zero latency between the talent and crew in the field.

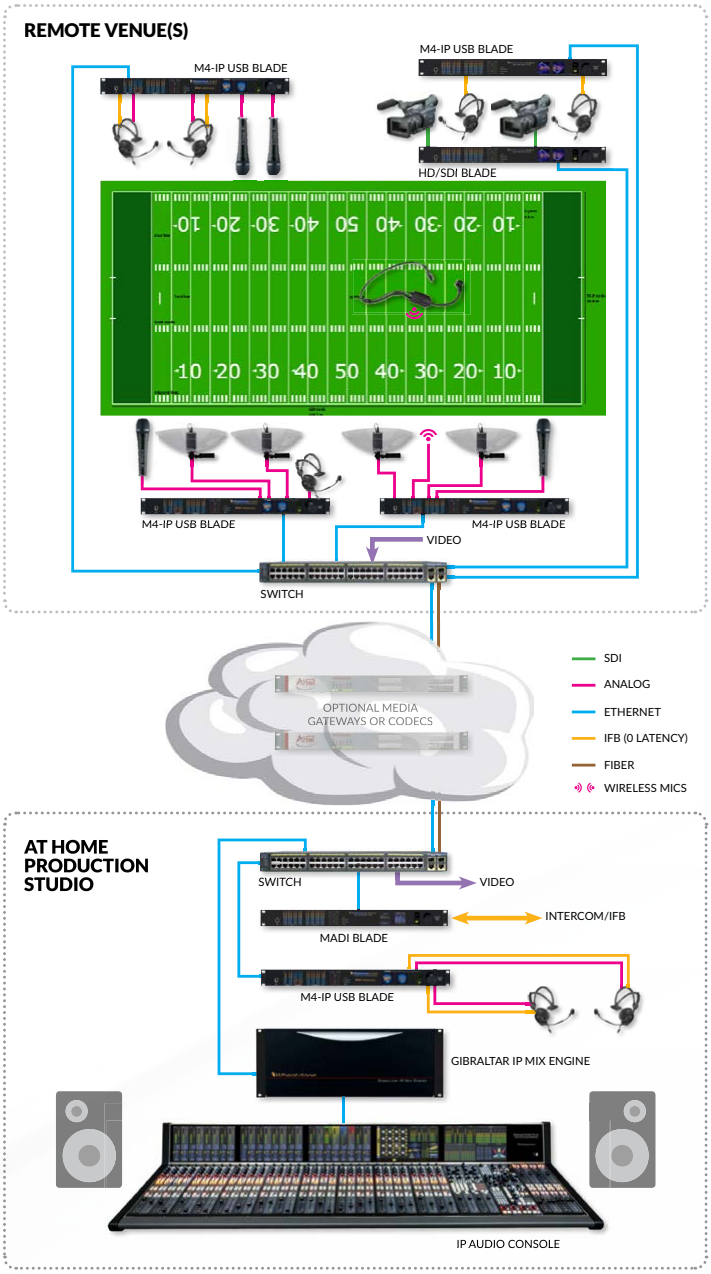
To retrieve audio coming from the cameras themselves, Wheatstone provides HD/SDI BLADEs to handle the SDI audio directly, dembedding it and sending it home as discrete audio.

All of this interfaces to a managed ethernet switch and is then linked via 10gig leased fiber or lower bandwith ethernet, optionally using media transport gear, to the home studio. Back at-home, the flow is through the switch to your standard studio configuration...

Wheatstone uses a MADI BLADE to interface with the IFB intercom system and get it into the pipeline, where it's managed by BLADES as outlined above. Local audio is interfaced using M4-IP BLADES for mics and IFB. Program mixing is done through any of our IP audio consoles, including our Series 2 and 4, D8-EX, Dimension Three (Touch), and our IP-64, via an IP MIX ENGINE for final audio production.

Handling remotes in this manner presents a number of advantages:

- Far less wear and tear on expensive studio gear
- Far lower travel expenses for production people on site
- A predictable mixing environment that can handle all remotes from a single location
- The possibility of installing permanent remote gear in stadiums and not having to haul/set-up for every game/show - either leased or sold - meaning a recurring cost savings when compared to repeated setup and tear-down
- Less equipment to transport – just your content gathering gear and crew (cameras, mics, interfaces, etc)
- Lower transportation costs



This is happening now, today. More and more games are being covered using at-home technology around the country and around the world. Wheatstone's WheatNet-IP is perfectly positioned for this transition. AND it can save you a LOT of money over using full broadcast trucks for your remotes. It's an exciting time in broadcast!

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