

# Audio Networking for Reality Television

“Competition” Reality shows are demanding increasingly complex audio, but...  
The budgets stay the same!



# Audio Networking for Reality Television

Audio/Comm needs for a typical reality show:

- Everyone gets a wireless body pack
- Wireless feeds to handheld cameras
- Wireless IFB feeds for talent
- Story Producers require individual mixes
- Wireless comms required everyone and their brother



# Audio Networking for Reality Television

- Some shows are more complicated than others:



**INK MASTER**

# Audio Networking for Reality Television

Inkmaster has:

- 16 Tattoo Artists
- 16 “Human Canvases”
- 4 Wireless Boom Operators
- 1 Host (plus IFB)
- 3 Judges (plus IFB)
- 8 wireless handheld cameras
- 16 Hardwired plant mics
- 4 Story Producers



# Audio Networking for Reality Television

Inkmaster's totals:

- 25,000 square foot RF coverage
- 1,056 audio sources+destinations
- 68 VHF/UHF coordinated freqs (+spares)
- 63 tracks of audio (x2)



# Audio Networking for Reality Television

Q: How to create multiple mixes on the fly  
for 8 handheld cameras?





# Audio Networking for Reality Television

- A: Create a custom touch screen interface to (2) Lectrosonics ASPEN DNT Digital Audio Processors

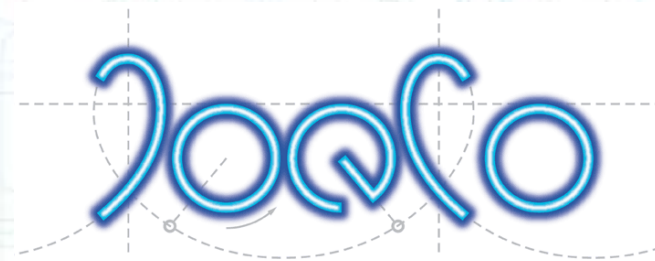


# Audio Networking for Reality Television

Q: How to interconnect audio equipment  
between:



**SOUND**  **DEVICES**



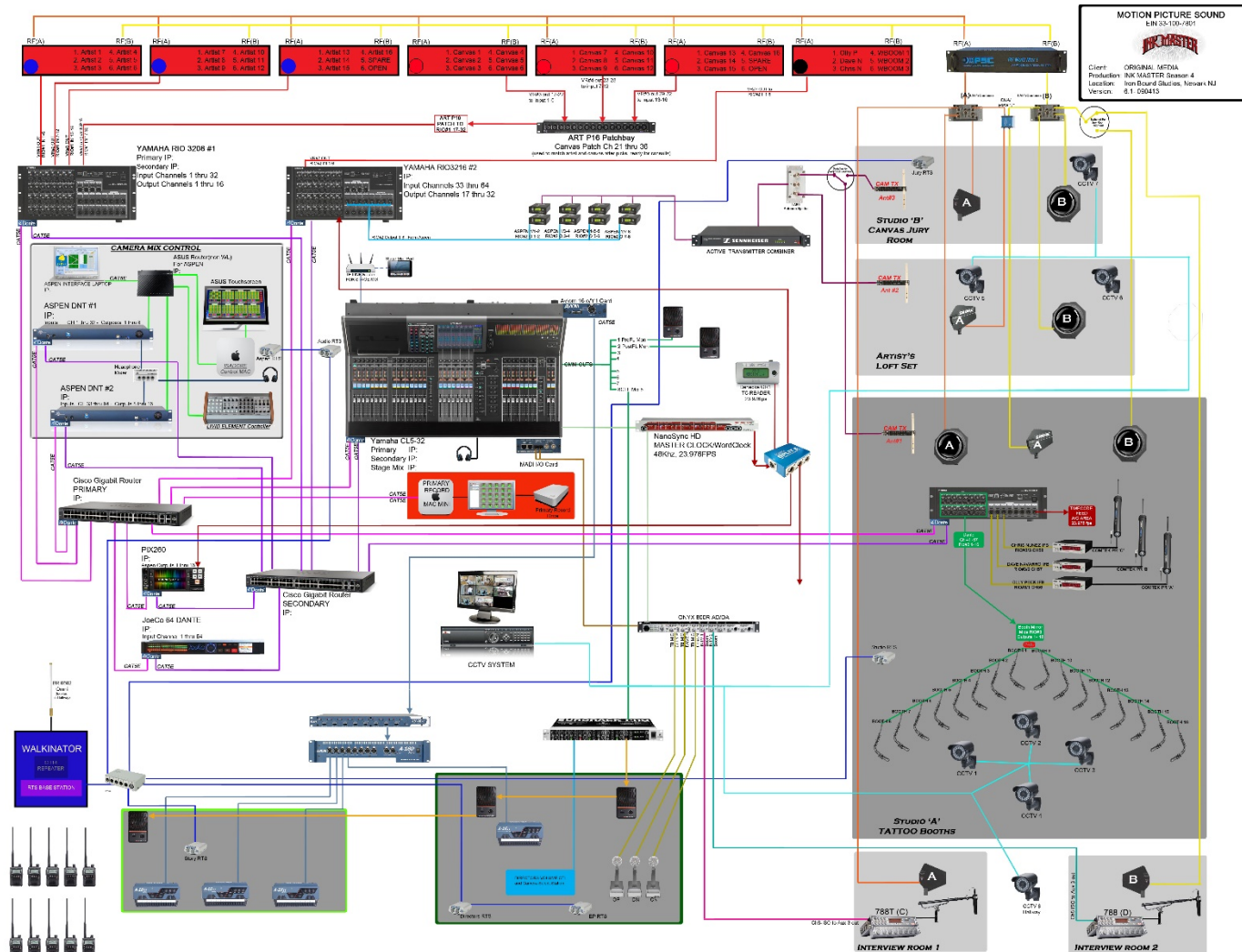
**AVIOM**

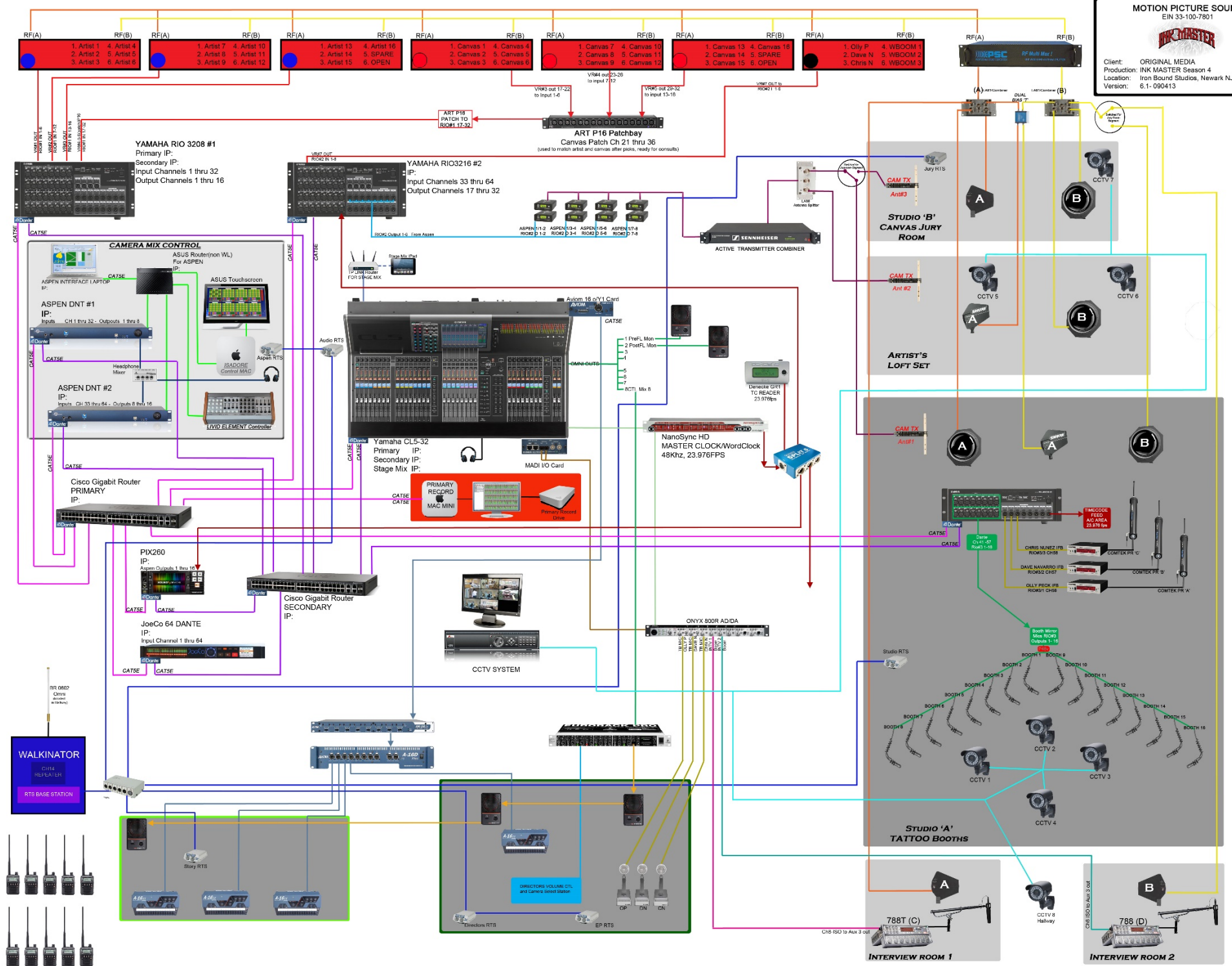
- Without multiple stages of A/D/D/A?



# Audio Networking for Reality Television

A: DANTE Audio network makes it possible.





**YAMAHA RIO 3208 #1**  
 Primary IP:  
 Secondary IP:  
 Input Channels 1 thru 32  
 Output Channels 1 thru 16

**YAMAHA RIO3216 #2**  
 IP:  
 Input Channels 33 thru 64  
 Output Channels 17 thru 32

**ART P16 Patchbay**  
 Canvas Patch Ch 21 thru 36  
 (used to match artist and canvas after polls, ready for consults)

**CAMERA MIX CONTROL**  
 ASUS Router(non WL)  
 For ASPEN  
 IP:  
 ASPEN INTERFACE LAPTOP  
 IP:  
 ASPEN DNT #1  
 IP:  
 Inputs: CH 1 thru 32 - Outputs 1 thru 8  
 ASPEN DNT #2  
 IP:  
 Inputs: CH 33 thru 64 - Outputs 9 thru 16

**Yamaha CL5-32**  
 Primary IP:  
 Secondary IP:  
 Stage Mix IP:

**Cisco Gigabit Router PRIMARY**  
 IP:

**Cisco Gigabit Router SECONDARY**  
 IP:

**PIX260**  
 IP:  
 Aspen Outputs 1 thru 16

**JoeCo 64 DANTE**  
 IP:  
 Input Channel 1 thru 64

**WALKINATOR**  
 CH14 REPEATER  
 RTS BASE STATION

**DIRTIONS VOLUME CTRL**  
 and Camera Serial Base

**DIRTIONS VOLUME CTRL**  
 and Camera Serial Base

**INTERVIEW ROOM 1**  
 788T (C)

**INTERVIEW ROOM 2**  
 788 (D)

**STUDIO 'A' TATTOO BOOTHS**  
 CAM TX Artist  
 CAM TX Artist #2  
 CAM TX Artist #3  
 CAM TX Artist #4  
 CAM TX Artist #5  
 CAM TX Artist #6  
 CAM TX Artist #7  
 CAM TX Artist #8  
 CAM TX Artist #9  
 CAM TX Artist #10  
 CAM TX Artist #11  
 CAM TX Artist #12  
 CAM TX Artist #13  
 CAM TX Artist #14  
 CAM TX Artist #15  
 CAM TX Artist #16

**STUDIO 'B' CANVAS JURY ROOM**  
 CAM TX Artist #3  
 CAM TX Artist #2

**ARTIST'S LOFT SET**  
 CAM TX Artist #2



# Audio Networking for Reality Television

Problems encountered:

- Clocking to “house sync” needs to be thought out carefully (Dante wants to be the sync master!)
- Different manufacturers' implementations of Dante require slightly different procedures (Dante controller vs. in-device routing, clocking nomenclature, no secondary, switched vs. redundant)

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Problems encountered, continued:

- Re-patching on the fly via Dante Controller caused glitch in the audio, causing us to revert to “analog” patching.
- Firmware updates done separately between audio hardware and Dante hardware





# Audio Networking for Reality Television

What I'd like to see for the future:

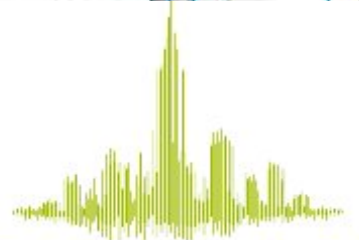
- Take the “Network” out of “Audio Network”(eg. no worry about Primary, Secondary streams crossing – more “self aware” network)
- More troubleshooting tools – especially problem solvers that exist for MADI (eg. Headphone boxes, analyzers, etc.)



# Audio Networking for Reality Television

What I'd like to see for the future, cnt'd:

- Integrated control and telemetry standards for pre-amp and wireless mic control
- More user – audio – friendly Controller





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Questions?

Peter Schneider

Gotham Sound and Communications, Inc.

330 W 38<sup>th</sup> St – around the corner!

[peters@gothamsound.com](mailto:peters@gothamsound.com)

(917) 270-2762

BOOTH # 2738

Saturday 12:30 – Sound Supervisor Martin

Kelly will discuss Inkmaster

workflow

