

Inside ABC's Landmark Broadcast Transformation

Matt Stagg in conversation with Mike Strein, ABC News

IAMT Studio Visual Podcast Series

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Hi, and welcome back to the IAMT Podcast Studio. I'm delighted to have my next guest, Mike Strein, Director of Engineering and Technology at ABC News, and we're going to talk about something that I absolutely love, because I'm from a studio background. And we're going to talk about the new facility that you and your team have built. If you could just say a little bit about yourself and what you do within ABC News, and then we'll get into the meat of it all.

Sure. Absolutely. But I have to ask you one question first. How many times did you say IABM instead of IAMT?

Did I? Yeah, no, it's just —

I didn't.

Did I say it just then?

No, you said —

Oh, IAMT, it was good. Yeah. IAMT — it's been so difficult.

I remember Stan telling me, "Oh, we're not going to launch until the day." Yeah. Okay, great. Yeah, sure. I've been in, essentially, broadcasting technology for 43 years. I'm going to retire — that's sort of an announcement here — but next May 22nd, that's 43 years to the day I got out of college. And most of the people I work with aren't even 43 anymore, so it's time to go. But 36 years were spent with ABC, and I've been lucky enough that almost an entire career has been at the forefront of change. So I started — it wasn't quite black and white, but it was analogue colour. We moved to serial digital, standard definition digital, then couple flavours of that, component, composite. Then we went to HD. That was a big transition. Then moved to IP, and then we built a whole new facility. So for me, it's been every couple years a phenomenal change, and I've been lucky enough to be at the forefront of that change.

Yeah, and I mean, some people have been lucky enough to see the facility. What I'm really interested about, because we don't see this investment a lot — this is massive, you know, and it's once in generations you build something new like this. When did the design process and planning for the facility start?

Sure. I'll give you a little bit of background too. I'm pretty sure, taking everything, that this was a Disney initiative, corporate initiative, and they saw all the rental properties and all the different things we had scattered all over Manhattan and said, "This is a pretty good idea to put it all in one building." Then after we planned all that, they said, "Well, what's your DR strategy?" So that's a whole other topic.

Feel that pain. Yeah.

I don't know if anyone will ever do anything like this again, but more to your point, in 2018, we sold all our existing facilities on the Upper West Side of Manhattan, and we leased a property that's down near Hudson — it's called Hudson Square. It's near the Holland Tunnel. And we started construction in early 2019, and then we started our planning. So do you want to talk about just physical facilities of the building? Or talk about planning?

Yeah, definitely. It's something that people won't have experienced. I was lucky enough to be at BT Sport when we built the studio. Yeah, I know the pains, but that was way before XR and virtual and LED walls and stuff.

Yeah. Well, the challenges building in Manhattan are many. We're right next to a subway. We're right near the Holland Tunnel, where all sorts of things contribute to complexities in design. So anyway, we got the word on this in 2018. 2019 we really started our planning. The last thing we wanted to do was lift and shift of what we had done in the past, right? We wanted to both change workflows — we wanted to change everything about what we do — and we wanted to build the most forward-thinking facility we possibly could, with the most flexible type of facility. So the thing about working all those years at ABC in the uptown campus is we learned all the things we didn't want to do again. Right? So we would have facilities that would be used maybe an hour a week, with all sorts of white tape everywhere — do not touch — patch cords tied in knots, all that sort of stuff. So that was the last thing we wanted. So what we did, we took a disciplined approach, right? We figured we wanted to POC this. So we had a bit of a runway — we had an on-ramp. We had to be out of our existing campus in 2025, so they have to break ground, they'd build the building, then we have to spec out everything, design it, move forward, right?

But it is good to have that dead stop, and then not get fined.

Yeah. And this was a true end, because we sold our buildings in 2018.

Right.

We leased them back, and there were penalties for not leaving. So we took, I think, a responsible and disciplined approach. We started out with diagrams and templates and what we thought we could accomplish. We started meeting with vendors. We leveraged trade shows to do this. So we started that in NAB 2019, followed that up in IBC of 2019, and we presented a lot of our concepts. And what we wanted from vendors was not just their NAB roadmap or their IBC roadmap. We wanted their five-year roadmap. So we signed a whole ton of NDAs — probably 30 to 40 NDAs with vendors — to get where they were going to be in five years. And were they working towards software-defined workflows? Where were they going? What were they going to do? And did they agree, philosophically, with what we were talking about, and going to the party with people?

Yeah. And what's come out of a lot of these discussions is that trust. And then, if you're looking at five years down the line, you're going to open that facility, you've got rid of your other buildings — you have to trust that they're telling you the truth, you know?

Yeah, absolutely. And some people were pretty good with their roadmaps. Some roadmaps looked a little — but that happens. So anyway, we started there. They broke ground. We started working on POC and all that, and then the pandemic hits. So part of our original thought process

and philosophy was to make as much software so that we could eventually move infrastructure out of the facility, right? So we have just some colos, and maybe there's a path to the cloud. Maybe there's this, there's that and the other thing. But what happened was the pandemic came, suddenly we had to get the people out. And we learned tremendously in our uptown campus, because broadcast is one of the real last bastions of ego, right?

Oh, God, yeah.

When anything big happens, all the executives flow into the studio, right? All of a sudden the control room couldn't have anybody in it, right? So it was a real learning process. Every broadcaster went through this. Every single one.

I mean, just on that point, we had a roadmap for remote production. It was three years. We had to do it in three weeks. And you must have been the same thing.

And it was just crisis management, as you know. But the things we learned out of that — we learned what worked and what didn't work. And so then we took that philosophy and brought that into the building, such that the interface that people would have remotely would be the same interface that they're working locally. And so we took the layouts of what we wanted things to do. We went down this VDI path where there are no computers — everything's essentially a zero client. You get your applications, you log in the same way you do at home. There's a dual-factor authentication process. So you get in and you get all your applications, all those things show up. So what's unique about this facility is that at every seat — when we finally finished it — every seat essentially is the same. So wherever you are in the building, they're all the same, or if you're at home. Everything's the same thing.

The workflow can go wherever you're sat.

Yeah, exactly. So we built the POC, we worked with all the vendors, we did product selection — we essentially compared what everybody was doing, where are their roadmaps. We made our product selection and started to move forward. That's kind of the end of '21, at that point. Then in '22 we started to write purchase orders. We engaged our integrator. Our integrator was Diversified. And we engaged a separate company called Intoto. And Intoto helped us build reference designs. So the last thing we wanted to do with any integrator — and this is not just Diversified, this is anyone you work with — I don't want to say they do this on purpose, but a lot of times they take what they learned from the last project and they bring it to the next project. And we did not want a lift and shift. We didn't want a replication. We wanted just our designs. Go ahead, no.

Yeah. No worries.

Stop banging on the table.

Yeah, we'll cut that. Don't worry at all, but my hands are free. I do too. I like passion. But only because I was doing it earlier and Paul told me off. Sorry. We'll edit that back.

No problem.

So actually, one of the big things that springs to my mind — like we said, we've done similar projects, but we were starting a company from scratch. BT Sport didn't exist. We got the rights, and then it was like, "Okay, we've got to go live." So we had that pressure, but we were also

getting the staff to do that. I mean, it blows my mind — how did you move everything using the people you needed, when you needed them to be working?

Boy, that was a challenge. And let me tell you something too — and I'm not trying to tap the table. Sport is different than news. Sport is — you have scheduled events. You know when things are going to be. You have a good idea when things are going on. News is reactive. So you build everything in case of a massive crisis, and they don't plan. We had to take an entire division that never plans for anything except the next election, except a convention or a big event like that, but they don't plan. Luckily they entrusted us to say, "This is what we want to do. This is how we want to do it," and gave us the run with it and do these sorts of things. So that was a challenge. And then to move those people — you're talking about the engineering piece?

Yeah. Yes. You've got your engineers doing engineering, and then you need them to do engineering over here.

Yeah. So, going back to building, the Intoto team built reference designs. Then we took those reference designs and the integrator built detailed designs based on that. So all the detailed design was done by the integrator, as well as the assembly. Being a Disney facility, it's got a data centre concept. It's a structured cable facility. We won't go into too much of that. But there were different groups that worked on different things. So my team didn't start to get engaged until the equipment was purchased. And by the way, logistically, we had this enormous facility. Diversified actually did this probably a different way than most people would ever do anything. We couldn't get equipment shipped to the building, right? We shipped it all to a logistics warehouse in New Jersey. There they then sent the pre-designed everything. So all the racks were pre-designed with where everything was going to go.

They built separate pallets so they could bring these pallets through small doors. So they had a — looks like a Costco or something. A giant warehouse, right? And they just built pallets and pallets of where everything needed to go. And when you talk about 100 edit rooms, dozens of control rooms — well, it was a lot. I think they said something like 1,800 pallets that had to be brought in. And all the designs for cable and all that was all done ahead of time, so as they brought that in, they would rack them up, put them in, and do that. So they did all that assembly. As we started to turn things on, my team and the networking teams and the system teams would get involved to start to get things rolling, right? And that's essentially the deployment process.

But before we did that, first we did the POC in our uptown campus. We did a pilot in our uptown campus, because we realised a lot of the purchases we were making were different vendors. And so the operational aspect was now going to be different for folks. So we wanted to give them an environment that should be similar, or a microcosm of what it was going to be, right? So we give them exposure to what the desks would look like, what the intercom panels would look like, the camera control, all audio boards, all that sort of stuff. So there are many changes that we made coming from our uptown campus, and we wanted to give the operators as much leeway to learn before they got in the building.

That brings me onto something that I'm quite passionate about: occasionally in technology we go to creative and editorial and say, "Here you go. We've got a great solution for the problem you didn't have, because it's really cool, and we saw it at NAB." But it sounds like early days you were bringing in that understanding, so you were actually making sure they understood what this

technology was meant for them. And also you get their feedback to make sure you're organising it and architecting it.

Yeah, absolutely. I mean, there were shortcuts and things that were limitations on what you could do — ceiling heights and where you could put monitors and displays and all this sort of thing. And as fussy operators moved in — let's say some of those graphics creation people could be quite fussy — we got a lot of, "Nah, I can't possibly work like this." Yeah, that sort of thing. And technology's different. You build a voiceover booth, for example, very differently than you used to. And we got a lot of that, too. I'm like, "I can't work like this." So we had to adapt and make some changes.

And then of course, you could never keep the audio guys happy.

Yeah. Let me give you an example with audio control room, right? So in our uptown campus, we had audio control room where comms and everybody shared the same space, right? And they had typically one monitor that they looked at, and they had maybe a peephole to see what was going on in the control room, and they'd listen and do that, just like any place, right? So we built these palaces — these audio control rooms with monitor walls, right? And they came in there, and they sat down, and they get everything on the monitor walls. "Where's my monitor?" Yeah, I know. So I had to go buy a whole bunch more monitors and put them in front so they could look at the one monitor they wanted to see. So just the classic example of — you can try all you want, but —

One thing before we finish that I'm really interested in, because it has a massive OpEx implication — I guess forget the CapEx you had first — but how long did you co-run with the new and the old facilities before you said, "Right, okay, that's it. We're in, switch off"?

Almost none. We had to switch off. So these are live shows — the same people, the same talent. So we phased it. The View was the first show to move over. That moved in 2024, Labor Day — beginning of September '24. Then all our news shows moved the following January, boom, one after the other. WABC moved at the end of that, because we're co-located with WABC. And then our last campus — Good Morning America was previously done in Times Square — they moved in June of '25. And of course they were a different campus now. We had to get out of our other campus by April 30th. We finished moving by March 30th. We then had till April 30th to decomm our old campus. And now suddenly you're finished building. I had to bring a whole team back to get rid of all the old crap. So that was — yeah, that was not quite so exciting.

No, no. And my last question is, is there one standout thing you have now learned that you would've done differently?

I'm not sure. There are a number of things I really wanted to accomplish, and I would say we accomplished 95% of those. I wanted one media fabric — dual redundant media fabric — because in our other campus, you had studios that could reach other studios, controls, and then you had to have a whole team patching and doing all this. We don't have any of that. What that does create is a minimal time period where you can do any maintenance. So that's the way — unfortunately you have teams that have to work Friday, 12am till 3am, and it's the only time they get to put a patch out. So that's difficult. There were a number of things. We made some changes and we fixed, and some things you learn, but there was nothing gross. And every single

show made air day, every single one. And that was just phenomenally successful, and I think that has a lot to do with the partners you pick. Just the folks — yeah, we spent a lot of money, we had big paycheques to all these people — but they really dedicated themselves to work.

Yes. You need them to want that studio up and running as much as you do. No, I get that, and hopefully I can come and see it next time I'm over there. In fact, you're retiring, so I could have your seat.

You can have it.

Okay. Thank you very much. That was really interesting, and if anybody is watching this who's in news, you'll be even more blown away by what these guys did. Okay. We're going to be back later on.

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