

THE NEWSROOM OF THE FUTURE

**Leading TV News Voices Discuss
What's to Come for Local Broadcasters**



CO-SPONSORED BY



TVTechnology



ITV'S NEWSROOM OF THE FUTURE WILL BE CLOUD-FIRST, CLOUD-NATIVE

Dave Woolston, Systems and Project Manager at the U.K. broadcaster, discusses where newsrooms are headed.

The newsroom of the future has been on the minds of news executives at the U.K.'s largest commercial broadcaster, ITV, says Dave Woolston, ITV Systems and Project Manager.

With 11 regional standalone newsrooms and several remote news bureaus, the broadcaster is considering how to go about centralizing workflows while maintaining the presence of its newsrooms around the nation. While plans are still in the works, one thing is certain: ITV's newsroom of the future will be "cloud-first and cloud-native," says Woolston.

In this interview, Woolston discusses why ITV is attracted to the cloud, the benefits it offers for news, how ITV's 250 reporters and news photographers in the field will be affected, and how AI-enabled cloud tools might fit into the future. *(An edited transcript.)*

ITV has 11 different newsrooms across the U.K. and multiple bureaus. You must give a lot of thought to newsroom workflow. Tell me about today's workflow and what you think the newsroom of the future will look like.

Dave Woolston: At the moment, we are a fairly traditional newsroom environment. Currently, each of the 11 newsrooms is a standalone island of siloed Avid® NPS [Newsroom Production Systems]. Each has its own studios and facilities.

We are looking to move into much more centralized workflows in the future. Rather than having all of these silos, we want one core and the newsrooms hang off that.

Whatever the newsroom of the future is, it will be cloud-first and cloud-native. There are so many tools now in the cloud. The newsroom production systems, but also master control switching; there's vision switching; there's all sorts of tools in the cloud.

We wouldn't want to lift and shift existing systems just to move them somewhere else. We'd want it to be cloud-native, designed from the ground up to work in that environment.

How would this cloud-native workflow support ITV's reporting staff?

DW: We have a lot of journalists out on the road—about 200 journalists and 50 or so camera operators. These are all one-man bands. They have cameras and lights and mobile phones and laptops with editing software. They literally do everything themselves. So the moment they shoot something, they pour it into their Media Composer®. They edit it, and then they FTP it back.

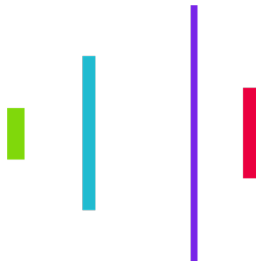
What we want in the future is a much similar experience for remote users as they have on premise. So, they would be able to pull material from the archive. They will be able to produce graphics, and graphics appear on their laptop.

Can you elaborate on the role of the cloud in this scenario?

DW: I think the cloud is an enabler. I don't think it is the only answer because connectivity is the issue. A lot of our reporters are remote, literally in the wilds of deepest, darkest Wales and Scotland, and they have no connectivity.

So, that autonomy—being able to move around and work locally—is equally important as the connectivity. Having a direct connection to the cloud or a VPN tunnel back to your office should enable this workflow. You can have an NLE running in the cloud and something like Teradici to connect to that.

You could be anywhere but have exactly the same facilities as in the office. So yes, I do see the cloud enabling that.



DAVE WOOLSTON

Do you see this as an on-prem or private data center or do you envision this workflow using a public cloud service?

DW: The data center approach would work, but what you miss out on is the security that you get from the cloud—the inherent security of all these big-time players. Security and resilience.

The biggie for the cloud as well is burst capability. If it's on-prem, you have to scale it for the biggest thing you are going to do, whereas the cloud gives you the opportunity to get extra storage and extra compute when you need it.

Again, that's where the cloud-native design is important, rather than just spinning up another virtual machine that does a specific job. It needs to be expandable on short notice. That OpEx model is very desirable as well for the future.

Do you foresee a role for the AI and machine learning available in the cloud in assisting reporters and newsroom managers in the future?

DW: I tend to think so, but it needs to be reliable. For instance, if it's speech-to-text and it's a news story, it has to be that 99.999% accurate, which we are nowhere near currently.

Facial recognition, again, has huge potential. It's great for logging. I've seen it at trade shows, and it's great. But you wouldn't want to put it to air yet. It's not reliable enough for us. But absolutely, the cloud enables you to add these things simply when they become available.

Again, with the on-prem approach and the baseband technology, you're buying into something that requires you to set up another connection to another service somewhere else. Whereas I think the cloud will enable us very easily to add these functions as well as scaling the system and adding extra components to the system if and when they become viable in our opinion. So, yeah, we would use them.

What will the TV newsroom of the future look like when it comes to producing news for other platforms like social media?

DW: That should be a no-brainer part of it. I mean, the whole NRCS should be story-centric from the beginning. Publishing from that as a story develops should just be part of the system.

So, you want your video and your scripts in one place, so at any point in the day when you do your next update you can get that onto social media. It should be within the interface and something every journalist is thinking about.

As much as we are still producing the linear news bulletins, viewership is going down and social is going up. So absolutely that should be part of it.

The suite of tools needs to be in there. I am very aware that the APIs from certain platforms change on a regular basis. This makes it very hard to keep up. Standardizing that so engineers can make sure it's always working would be great, but that's always going to be a battle.

It just needs to be there. There's no question about it.

I'm curious about your perspective on a developing trend here. Reporters and anchors are working from home due to COVID-19. Some say this adds a new authenticity to newscasts, as viewers can have a look into the homes of the people they've watched for years behind the anchor desk. What do you think?

DW: I tend to agree. I think in the early days, it was a bit of a novelty. It was like: "Oh look, there's our anchor's house. I've never seen that before." I think people quite enjoyed it, but it's wearing off now.

The idea that content is king is still very much the case. Having those words spoken and delivered by someone you trust is still very important.

There's been various methods of getting the video out and getting the teleprompter out to them. Different



presenters have different technical capabilities. We've had some presenters in the vulnerable category—over the age of 70—who have been forced to stay at home.

They're not very technical, but we can't send people in to set things up. So literally, it's a laptop and Skype and whatever lights they have to make it work.

It was enjoyed, and I think people appreciate that it happened, but I think they are still looking forward to the quality—the slick presentation—they are used to.



MEDIA COMPOSER® | CLOUD REMOTE AND MEDIA COMPOSER® | CLOUD VM

REMOTE FIELD EDITING HAS NEVER BEEN EASIER

By Kate Ketcham, Director, Product Management

Recent developments have motivated TV broadcast news executives to consider new workflow options that make it possible to continue serving the public's interest in timely news while encouraging—and in some cases mandating—reporters and anchors to stay away from the newsroom and work remotely.

While being in the field puts reporters, photographers, and MMJs closer to where the news is happening, it also leaves them without the writing, newswire, and video editing tools they have on their workstations in the newsroom—at least until now.



Avid® offers two different solutions to enable broadcasters to extend their newsroom workflow to reporters' homes, a coffee shop, or anywhere there's internet connectivity.

For news organizations with Avid MediaCentral®-based workflows, Media Composer | Cloud Remote is software that lets Media Composer | Ultimate™ users work remotely by connecting to the station or its data center via high-speed internet connection. The software will allow multiple people needing remote editing capability to access, upload, download, ingest, transcode, share, edit, and collaborate in real time.

For reporters and others with older laptops, or

stations that do not have Avid MediaCentral, Avid offers Media Composer | Cloud VM, an “add-on” option for Media Composer | Ultimate. Cloud VM enables Media Composer to run in a virtual environment at the facility. Users run lightweight connection clients to access the virtual system from their remote location, allowing multiple users access to their software and projects. As an alternative, a remote desktop client can give reporters remote access to their Media Composer workstations.

With many news executives predicting remote workflows becoming a fixture going forward, tools like Media Composer | Cloud Remote and Media Composer | Cloud VM will prove to be invaluable.

THE INCREDIBLE SHRINKING NEWSROOM

As the eyes of news executives open to the benefits of working remotely, the newsroom of the future looks to become highly decentralized.

The newsroom of the future will be a bit like the human appendix: something that once was vital to overall well-being but has become the vestige of a bygone era.

Coming out of the COVID-19 pandemic, the world looks different, especially when it comes to how local TV news is gathered, edited, and reported. The outbreak with its social distancing and work-from-home orders has forced newsrooms to make significant workflow changes that will reverberate for years to come.

Once-sacrosanct morning editorial meetings gave way to streaming conferences on Zoom and Slack; reporters,

photographers, and MMJs were told to skedaddle, work from the field, and rarely, if ever, come back; anchors and meteorologists, once fixtures on sets of chrome and glass, were told it was OK to work from home and imbue their presentations with an authenticity viewers rarely see.

“What we are finding is working from home—working really, really remote—worked,” says Régis André, Senior Director, Product Management, at Avid®.

André, who conducted scores of online meetings with news directors in place of those scheduled for the cancelled NAB Show, says it’s clear the outbreak has ignited a desire among news executives to transform newsrooms.

“When you see the newsroom, the real estate and everything that goes into it, I think we will see it shrink. Or, as one of the customers put very bluntly: ‘The newsroom of the future doesn’t exist as a newsroom anymore.’”

Newsroom Transformation

None of this is to say that local TV news will disappear. To the contrary, the pandemic has reminded the public of the value of having a trusted source of local news. People, including millennials who once shunned local TV news, are tuning in in droves.

What the pandemic has done, however, is to push news workflows out of the newsroom and into the field by necessity. Once unimaginable to many news executives, the thought of virtualizing common newsroom tasks in the cloud is getting serious attention.

“A lot of customers didn’t want to use the cloud because of security concerns, but now they have to,” says André, adding that broadcasters are coming to understand that cloud vendors offer a level of security exceeding anything they themselves can provide.



THE INCREDIBLE SHRINKING NEWSROOM

“Going forward, the cloud is going to be a priority. It means working with proxies; it means working from laptops and cell phones; and it means a shift in focus from those crafty, hefty PCs in newsrooms,” says André.

However, this is not an all-or-nothing proposition. Most newsrooms in the future will employ a combination of on-premise and cloud storage and computing, says Colleen Smith, VP of Market Solutions for Avid.

“We don’t see everybody today taking absolutely everything they have on premise and putting it in the public cloud,” she says. “Rather, very specific workflows will be done entirely in the cloud.”

One is news editing, says Smith. Avid’s new Edit on Demand software-as-a-service (SaaS) solution offers the editing toolset available in Media Composer® and the production storage of Avid NEXIS® in the cloud.

“We are providing cloud-based access storage and cloud-based video editing all in the Microsoft Azure public cloud,” says Smith.

On-demand availability of tools like these in the cloud not only gives journalists in the field access to workflows they’ve grown accustomed to in the newsroom, but it also enables stations to spin up instances as needed without incurring the expense of building out their own physical infrastructure to meet peak demand, notes Smith.

Other specific cloud-based on-demand workflows that can benefit newsrooms include asset management, production management, archiving to enable business continuity, and publishing news content to digital platforms and social media—functionality that’s available today in Avid’s SaaS-based MediaCentral® Publisher, she says.

“This is a real specific workflow,” says Smith. “While it needs to be integrated with the backend system [from which a newscast or individual stories originate], the actual workflow itself is best done in the cloud.”

Newsroom in a Phone

For several years, stations have encouraged just about everyone in the newsroom to keep their phones handy to shoot footage if they should happen upon news. But in the future, smartphones and tablets will become a primary access point for reporters in the field to all of the tools they need to do their jobs.

“In the future, it’s going to be about better tools to communicate and how do we embed those communications tools and production tools,” says André. “I call this ‘app hopping.’ Zoom for this, [Microsoft] Teams for that and whatever professional apps there are to do their jobs.”

Avid’s new Reporter App, available for iOS and Android devices, is an example. Designed to simplify how reporters in the field produce news, the app allows them to shoot footage, edit stories, create graphics, and push content to social media sites, the internet, or back to the station directly from their devices, says Smith.

“Initially when people started talking mobile journalism, what they were trying to do was just take everything that’s done back at the newsroom and make it available to journalists out in the field,” says Smith. “But what you really need to do is change the tools and give them just the tools that are necessary.”

Taking advantage of the phone’s own powerful capabilities, the Reporter App ensures video is recorded at a fixed frame rate—something most phones don’t do—so it can easily be used on TV, and that audio is recorded at the right bit rate. Timeline-based editing can then be done locally on the phone, adds André.

While the app is a self-contained news workflow enabler, connecting to the cloud via the internet significantly ramps up its capabilities by making it possible to retrieve, cache, and integrate pre-rolls,

post-rolls, lower-thirds, and other frequently used elements into stories, he adds.

When combined with certain SaaS-based cloud tools, the app puts into the hands of reporters capabilities that are even more powerful than those currently available in the newsroom, says Smith.

For instance, cognitive search capabilities available in the cloud will make it possible for reporters uploading footage of a fire to the cloud to later quickly locate the specific shots they want and be the first to publish or deliver a story, she says.

“Literally, using AI-driven cognitive search, you can search all of the footage that was captured and say, ‘Show me every time there was a firefighter,’ or ‘Show me every time the term “victim” was used,’” she says. “You can even search for a particular person or every time there was large flames.”

Cloud-based solutions and the tools to enable remote news workflows have been available from Avid for several years, says Smith. But it took the COVID-19 pandemic to open the eyes of many news executives to their importance.

In fact, some users of Avid’s MediaCentral® | Cloud UX, a completely browser-based, cloud-accessible product, had not upgraded to the latest release of the software as of the outbreak, she says.

However, as soon as it became clear that the safest course of action was to decentralize newsroom workflows, there was a change in attitude about the value of the cloud and remote capabilities and a rush to upgrade.

“The reason we got here is very sad, but the silver lining is there’s a recognition of what needs to be done,” says André.

“Once the pandemic has passed, I don’t think broadcasters will want to go back to the way things were because it works so much better being closer to the action,” he says.



MEDIACENTRAL® | CLOUD UX

TAPPING THE POWER OF THE CLOUD

By Régis André, Senior Director,
Product Management

As TV news organizations mull over the cloud as a central feature of their future newsroom workflows, questions inevitably turn to whether the tools they require to not simply replicate, but improve, newsroom workflows in the cloud are available.

Just as important is whether or not a cloud-based workflow can support reporters and MMJs, who increasingly are being asked to work from the field, by outfitting them with the tools needed to tell better



stories and attract viewers.

Avid®'s answer is MediaCentral®, a powerful ecosystem that gives users access to every module, app, service, and connector they need to excel at their jobs from the MediaCentral | Cloud UX web or mobile app interface.

Using MediaCentral | Cloud UX, reporters in the field can do timeline video edits that make it easy and efficient to assemble complete packages using a web browser or mobile app and publish them to video servers or social media platforms.

The built-in editor in MediaCentral | Cloud UX lets reporters mark in and out points in their clips, build sequences, and perform edits, including multiple tracks of video and audio, L-cuts, transitions, voiceovers, and templated graphics.

In today's race to be first and accurate—especially in an era when digital and social media platforms give reporters nearly instant access to an audience—being close to stories has never been more important.

With MediaCentral | Cloud UX, reporters working in the field can tap the power of the cloud to tell better stories.

THE SHAPE OF THINGS TO COME: NEWSROOMS CHART A PATH TO THE FUTURE

The cloud will help local TV newsrooms remain relevant and enhance newsgathering.

The local TV newsroom of the future will be more connected and efficient, less prone to long-established editorial management methods, and generally emptier than today's model.

At least that's the view of some leading television news voices who envision or are currently implementing strategies in their

newsrooms to enhance local coverage, make better use of personnel, and present news and information in a way that not only is accurate but also relevant to viewers.

Many of the changes putting newsrooms on the path to the future have been in the works for some time. Others can trace their origin directly to the response of local newsrooms to the COVID-19 pandemic and efforts to protect personnel by establishing work-from-home policies and adhering to social distancing recommendations.

Taken together, these changes promise local broadcasters a future in which their newsrooms are far nimbler and more productive, capable of better informing individual communities within their DMAs and producing a news product that keeps them competitive.

Embedded and Hyperlocal

Putting more feet on the street is nothing new for local TV newsrooms. What's changing is that journalists are being instructed to embed themselves in the community, says Scott Livingston, SVP of News for Sinclair Broadcast Group.

"They never before were really embedded," says Livingston. "This is truly where it's rare for reporters, photographers, and MMJs to come to the station."

At Sinclair, embedding journalists in communities to produce hyperlocal stories began months before the outbreak of COVID-19 as part of a pilot project "to look at our product, our process, our performance, and our platforms," says Livingston.

The goal was identifying workflow changes at a few stations that ultimately would enable the broadcaster group-wide to become more effective at producing more content. The



THE SHAPE OF THINGS TO COME

pandemic, however, accelerated adoption of this model to great effect, he says.

“We are up about 20% on a daily basis [in terms of story count],” says Livingston. “Then also our social and digital performance has increased significantly.”

At Meredith stations, the outbreak also has accelerated the push towards a greater presence of journalists in the community, says Patrick McCreery, President, Meredith Local Media Group.

“We all know that the heart of local television stations is their localism and what they cover in their communities,” says McCreery.

“If we can be in those communities covering them more frequently or consistently, that ups the quality of our coverage.”

Embedding journalists also reduces what the coronavirus outbreak revealed to be unnecessary time spent in editorial meetings, says Frank Mungeam, Knight Professor of Practice, TV News Innovation, at Arizona State University’s Walter Cronkite School of Journalism and Mass Communication.

Remote virtual meetings, like those enabled by Slack and Zoom, offer reporters an alternative to morning editorial meetings where they pitch story ideas and managers make assignments, says Mungeam, who previously was VP of digital audience engagement at TEGNA.

“It is only partially saving time driving back and

forth [daily for editorial meetings],” he says. “The other half of this community journalism strategy that is beneficial for local TV newsrooms is better community relationships, which lead to better story identification, which leads to better storytelling.”

In the newsroom of the future at a station that has deployed NextGen TV, this hyperlocal coverage may be particularly beneficial to individual communities within DMAs as broadcasters will have a technology that enables them to transmit unique, targeted content over the air to different zones within their overall coverage area.

“There is no doubt you can break down [coverage] and provide hyperlocal, county-by-county coverage of...any significant story,” says Livingston.

The Cloud, AI, and More

To support reporters permanently—or at least nearly permanently—embedded in communities, newsrooms will be required to equip them with the same NRCS, video editing, and wire service tools they had at their fingertips in their newsroom.

For several years, reporters in the field have been able to access their newsroom workstations via the internet and a VPN. While this approach has worked, it hasn’t been without its own set of challenges, says Mungeam.

“Any reporter will tell you about all of the drama of Wi-Fi connectivity, the slow file uploads and various

workarounds for them,” he says. “Plus, video files are huge.”

One benefit of the remote news workflows employed during the COVID-19 outbreak is the spotlight that’s been trained on just how dependent newsrooms are on their physical tools, he says.

“I think a move to the cloud was inevitable, but we will see that happen much faster [because of the pandemic],” says Mungeam. “Frankly, it will make us more versatile and adaptable—two words you would not have used to describe a traditional local news broadcast.”

McCreery, too, sees the outbreak accelerating use of the cloud to enable reporters to work in the field as if they were in the newsroom and to manage unwieldy video file sizes.

“Let’s face it, video takes up a lot of bandwidth,” he says. “Moving into a system that requires less hardware on either end and provides the pipe you need to move the product makes sense, and I think you will see a faster move by the industry to the cloud.”

Cloud-based news production workflows also position newsrooms to take advantage of the “greatest untapped opportunity in local broadcast news,” says Mungeam.

“It’s not about using the cloud simply for current workflows, it’s leveraging all of the AI and automation opportunities,” he says.

“We all know that the heart of local television stations is their localism and what they cover in their communities. If we can be in those communities covering them more frequently or consistently, that ups the quality of our coverage.”

PATRICK MCCREERY, PRESIDENT, MEREDITH LOCAL MEDIA GROUP

THE SHAPE OF THINGS TO COME

For instance, AI speech-to-text algorithms can remove the drudgery of manually transcribing interviews, something the average TV reporter spends 30 to 45 minutes per day doing. That's time better spent on reporting, he says.

Tagging content with metadata created by facial and object recognition algorithms will be available in the cloud, as will AI-driven automatic parsing of newscasts into discrete stories to enable new experiences for audiences, he says.

"You could literally move the audience from legacy newscast experiences to a much more digital on-demand kind of experience where you get what you want and I get what I want without a lot of labor added for the local newsrooms," he says.

Even many production control room functions are cloud-bound. Sinclair is now experimenting with the cloud to support live newscast production.

"We started looking at platforms and technology to see how we can do this," says Livingston. The goal is to allow a director sitting at home to direct a newscast from a laptop by accessing video, graphics, and templates, building a timeline, and stacking a show.

"It's a virtual control room," he says. "We are actually experimenting now...doing two half-hour newscasts a week directly using a laptop."

What these trends add up to for local TV newsrooms is a future in which there are far fewer people in the actual newsroom—mostly managers, anchors, and directors.

A future in which virtual meetings replace traditional morning editorial conferences and lots of wasted time commuting. A future where the cloud equips embedded journalists with the tools they need to do their jobs more effectively in the field; one where the same cloud enhances the accessibility and value of media assets and transforms how viewers interact with news.



While these sorts of newsroom workflow changes may have seemed impossible even a few months ago, the COVID-19 outbreak has encouraged newsrooms to re-examine many long-held beliefs.

"What I have learned in the last three months is that we can do many of those jobs virtually," says McCreery. "Heretofore, I don't think we believed that could be done."



SCOTT LIVINGSTON REFLECTS ON THE NEWSROOM OF THE FUTURE

The COVID-19 pandemic has accelerated Sinclair Broadcast Group's plans to adopt major news workflow changes.

The Sinclair Broadcast Group was already a couple of months into its trial of a new newsroom workflow aimed at bumping up story count and improving the overall quality of stories when it became clear the COVID-19 outbreak would leave its mark on the United States, says Scott Livingston, SVP of News for Sinclair.

The lessons learned in its handful of test markets positioned the group to institute changes quickly across its 73 news-producing stations to support remote anchors and reporters working from their homes or the field and a slew of other changes to deal with the new reality of the health crisis. In effect, the pandemic accelerated adoption of the local TV newsroom of the future.

In this interview, Livingston discusses Sinclair's news innovations, embedding reporters, MMJs, and photographers in local communities, the role of the cloud in future news operations, and what the TV newsroom of the future will ultimately look like. *(An edited transcript.)*

Scott, you're quoted as saying the COVID-19 pandemic is accelerating the TV newsroom of the future. How so?

Scott Livingston: I think the crisis has led to some unprecedented innovation across the group.

We had to quickly solve some workflow issues. Fortunately, we've had an innovative mindset for the past couple of years. We were already looking into creative solutions to some workflow challenges.

Within days, all of our stations embraced that new workflow—every day in every newscast. We essentially mastered instant field anchoring and instant field producing.

I think the coronavirus outbreak forced us to define and

develop new processes. There are really no excuses. We had the mindset of what we may have thought was impossible now was possible.

So, the pandemic really did accelerate the newsroom of the future. I think moving forward, what we are doing now will be the new norm, and it will help us stay relevant on every platform.

So you don't see workflows and personnel assignments going back to the way things were before the outbreak?

SL: Correct. No doubt. All of our meetings will use technology, so the editorial meeting will be folks joining in from remote locations.

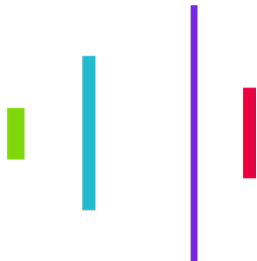
We expect to take this momentum and take what we've learned and extend that into the workflow of the future. That's going to be a seamless transition for us.

That's a big change.

SL: It is a big change. We started working on this project at the end of last year. We worked with three markets where we were taking a look at our product, our process, our performance, and our platforms.

Our focus was to change the workflow so that we could be more effective at producing more content. So it was a quality play and also a quantity play—better content and more content on the whole platform.

If you look at the newsrooms, social/digital is top of mind, but the workflow is pretty much the same. Nothing has changed dramatically in the last 10 years about how we approach our workflow. We have better technology, but we still approach things pretty much the same.



SCOTT LIVINGSTON

So there was a real big push on our part to get a better idea of how we do things so that we can innovate and build the newsroom of the future so that we can be more relevant on every platform.

So when the pandemic hit, we had already been looking at some of these things. But it's really forced us to jump forward. We don't want to lose that momentum.

You mentioned field anchoring and producing. How are the workflow changes affecting reporters?

SL: Part of our new workflow includes embedded photographers, reporters, and MMJs in the local community. This is a win-win situation. It helps keep our team safe and gives us an opportunity to produce even more hyperlocal content.

Right. But hasn't being in the field always been part of the workflow of photographers, reporters, and MMJs?

SL: They never before were really embedded. This is truly where it's rare for reporters, photographers, and MMJs to come to the station.

They are working from home. They are working from the field and producing multiple stories on their laptops and sending those files into the station.

These field crews still need tools like newsroom computer systems to write scripts, newswires, and video editing tools that they are accustomed to using in the newsroom. Is providing them in the field part of the strategy? Is the cloud and virtualizing some of these tools part of it?

SL: It is. Our IT team has done an amazing job of giving us the tools to connect remotely via VPN.

We have producers putting together shows from their kitchen tables. We are working on identifying a new technology that will allow us to produce a newscast virtually, where a director will be sitting in their living room or at their kitchen table directing a show.

So, we are exploring the potential of producing most of the newscast remotely from someone's laptop, really leveraging the technology that we have at our fingertips.

Sinclair has used IP-newsgathering backpacks for some time. Many of the vendors offering them also offer a cloud-based content management and sharing platform to make it easy for multiple local stations in a group to share stories and footage. You mentioned VPNs to connect securely. But do you see the cloud becoming a bigger part of the remote workflow you've been describing going forward?

SL: Right. We are LiveU. I see the cloud becoming a bigger part of the equation, no doubt. With LiveU, we have the LiveU phone app, which we signed the contract about a week before the outbreak, so the timing was perfect.

It allows all of our crews to use their cell phones to share content and to go live directly from the field.

So that has really been a game changer for us. Beyond that, we are transitioning to do more cloud-based file sharing.

A few years ago, there was some hesitancy by broadcasters about pushing content into a public cloud out of concerns over security. It seems like based on what you are saying those concerns have lessened.

SL: I think obviously that's always going to be a concern, but I think that is part of the new reality.

Do you see stations leveraging the AI and machine learning tools available in the cloud to make archives more accessible, better manage content assets, and maintain business continuity? Maybe even to make it easy to collaborate with sister stations on regional or national stories?

SL: We are looking at all of that, and part of our strategy has always been to share content within regions across the country. This will just allow us to do it more effectively and efficiently.

That's a big part of leveraging the Sinclair strength, being able to provide content and have stations easily access that content.

Who will be left in the newsroom of the future based on this new workflow?

SL: Our managers and anchors and directors. As I mentioned, during this pandemic we've taken steps and followed protocols to make sure our employees are safe at our stations.

But then we transitioned to say, while we are doing that let's take a look at how we can be more effective and at how we can produce even more content remotely.

We started looking at platforms and technology to see how we can do this. What I am talking about is a virtual control room. We are actually experimenting now. We are doing two half-hour newscasts a week directly using a laptop.

This is really important as we take significant steps to accelerate the newsroom of the future.