

Remote Production for Virtual Events

...who do you turn to when you need something more than Zoom?



Delivering virtual events, simply & efficiently

We've all become accustomed to a world where meetings are held in Zoom, Teams, or Webex. Nightly news bulletins and current affairs shows are populated with pixelated and grainy content that only a year ago no self-respecting TV network would choose to broadcast.

For over twenty years, The P.A. People have based our event communications delivery on network-based solutions. Now, more than ever, the experience and expertise we have developed allows us to deliver systems, support and services to remote production for virtual events, simply and efficiently.



We are all living and breathing in a virtual world. But while generic video conferencing applications are good for hosting a meeting that would otherwise be held in a boardroom or a huddle space, they are not fit-for-purpose for events that require more creative control over the format and content.

Prior to the pandemic, The P.A. People and our partners were regularly supplying communications solutions to support remote production. Picture an Annual General Meeting for a multinational bank; while the main event was held in a theatre or convention centre in Australia, there were satellite events in other countries requiring integration between the production teams in the two venues. Using a Clear-Com Eclipse Intercom frame located in a local data centre, we were able to provide simple IP-based connectivity between users worldwide. End users were operating a traditional key station, wireless intercom pack, or mobile phone application, all with the same connectivity and level of integration they would get as if they were in the same room.

Broadcast video has followed the same IP-based migration

as intercom systems. There are a number of IP-based video workflows that are used every day in media, broadcast and sports production, which are perfect for remote production applications. While video playback from desktop computers has been the norm for years, the transition from SDI to IP is a relatively small step. Software-based video processing and switching solutions have been developing in the market for years and the necessities of the pandemic brought them very quickly into the mainstream.

As the pandemic shut down live events, The P.A. People investigated what was needed to expand our suite of remote production solutions, leveraging our extensive networking and communications expertise.

The following case studies demonstrate the range of tools we've developed that allow our customers to create, produce, and host virtual events with great production values and visually interesting content; for those events 'when you need something more than Zoom.'



Case Study 1 - The Australian Event Awards 2020... All Right on The Virtual Night!

With five separate shows across four time zones needing to be co-ordinated, the all-important distributed comms system kept it all on track.

There's a tried and true formula for an industry awards night - find a big ballroom in a capital city, fill it full of production and theming, fly in the luminaries, put on a big show with dinner, and hand out the gongs. But of course, all of that went completely out the window for the premiere night for the Australian events industry in 2020.

Faced with COVID restrictions and closed borders, the 2020 edition of the annual Australian Event Awards, slated for 21 October, almost didn't go ahead. It was only after a monumental effort from the organisers and their production and technical partners that the show evolved into four separate, but linked, gala events, a 'virtual' show in Melbourne, and a livestreamed broadcast pulling it all together. On the night, winners included 'Highway to Hell', the Perth Festival's closing event, for 'Best Cultural, Arts or Music Event', and the ICC Women's T20 World Cup, for 'Australian Event of the Year'.



Sydney, Adelaide, Perth, and Brisbane all got their (COVID-safe) dinner and a show, with Sydney functioning as HQ for the livestream. Big Picture set up their broadcast control room at the Luna Park venue, with internet services supplied by Barrett Evolution and streaming production from Firesteel. The P.A. People were brought in to supply the video links between each site, and with five separate shows across four time zones needing to be co-ordinated, the all-important distributed comms system to keep it all on track.

"Each state had its own local production," explains Andy Carson, Senior Systems Engineer (Event Communications) at The P.A. People. "It was slightly different in every state, but basically the local suppliers provided audio, lighting, video, and cameras. We took a live feed from the local vision mixer at each venue along

with an audio split and sent them via SRT over the public internet back to Sydney, to the broadcast control room at Luna Park. Ian Cooper mixed audio on a Yamaha PM10 supplied by Coda. After the video and audio was switched and mixed by Big Picture, we sent the mixed feed back out via SRT to each site."

The P.A. People sent a pre-configured rack to each remote site that contained a network switch, Clear-Com LQ audio-over-ethernet interface, Clear-Com FreeSpeak II wireless comms system with belt packs and a computer loaded with SDI to NDI converters. There were also PTZ NDI cameras at each venue that sent confidence shots back to the control room.

"We have a Clear-Com matrix frame in a Sydney data centre," elaborates Andy. "This enabled us to link all the site's comms together. We are also hosting an instance of Clear-Com's Agent-IC in the cloud, which enables to run comms on mobile devices, anywhere. All up, there were four channels of comms running to each site. They included the linked global show call from the caller in Sydney, who could speak to every site at once, the local show call channel for each state to talk to each other, the channel for the camera call in each state, and a channel to talk to the local techs without talking over the show call. Everything was linked via the internet and into the FreeSpeak II system in each state, so the local techs could all go wireless while talking to us in Sydney."

Co-ordinating the shows was down to the skill and experience of the show callers, with help from some very capable presenters and rock-solid comms. "Each state had its own stage manager and caller and the awards shows were designed to run around dinner," outlines Andy. "The whole production relied on the showcallers to keep everyone in check. The P.A. People and Barrett Evolution have done many multi-site productions across national and international borders and it's always full on! We enabled IFB for every presenter and IFB connectivity to the show callers, so they could talk to every presenter's IEMs individually. We even did IFB feeds into Zoom to cue respondents for the virtual Melbourne event!"

With virtual and livestreamed events blossoming amid the pandemic, The P.A. People has been constantly busy providing services for remote comms and production, enabling them to hone and perfect their local and remote systems. "We have clients that are doing major events every month," offers Andy. "As the virtual event market has expanded, it's allowed us to expand our requirements and polish all our native IP technologies."

Case Study 2 - Dishing up twenty hours of video conference-style content was unlikely to engage their youthful and tech savvy audience

For a number of years, The P.A. People has provided production for an annual youth conference held in the week after Easter. With COVID-19 restrictions in place, we sought a solution to be able to present conference content to their target audience that would include a number of international presenters along with local hosts. The desire was to produce and stream three live daily shows over the course of the original five-day conference dates, augmented by downloadable and streamed workshops. The hosts of the event were well aware that dishing up twenty hours of videoconference-style content was unlikely to engage their youthful and tech savvy audience. A solution that embraced high production values with lower-third overlays, watermarks, graphics and pre-prepared content was required.

Over a very short timeframe, The P.A. People worked with the production team to create a solution where each of the event hosts was able to link in via their web browser to our central

production suite. Each host, alongside video playback and a local camera, became an input to a virtual vision mixer. This mixer enabled the show to be cut and mixed just like a traditional video production, providing the capability to use wipes, fades, and video overlays. Audio from each host and the VTR playback was broken out into a separate local audio mixer to provide a professional mix and individual return feeds to each presenter, before being re-embedded into the main vision output. The entire production was then recorded and streamed to both YouTube and Facebook Live.

Matt Gelding commented "We have enjoyed working with The P.A. People on this event for quite a few years now, and the solution they put together for our 2020 edition was fantastic. It allowed us to continue to engage with our campers in an innovative and effective way through a very unusual period. We received great feedback throughout the conference."



Case Study 3 - Virtual meetings for Local Councils... remote access during challenging times

The P.A. People has a long history providing audio, video, and discussion systems to all levels of government across Australia. We had been providing an AV package to a particular local council for 18 months before the pandemic, as they transitioned to a new facility.

Prior to lockdown, our services included an audio system and video display monitors to facilitate council meetings, while the council's IT department provided a camera and a simple web stream of the meeting proceedings.

With the advent of COVID-19, the council needed to transition to a full virtual environment to facilitate their meetings, which they initially chose to do with an in-house video conferencing product. After some teething issues, council approached us to provide a different solution that would enable a more traditional workflow for the councillors.

We were able to develop a system that provides remote access for each of the councillors via their browser, and full independent control of video and audio mixing and routing. Unlike the scenario in Case Study 1, where all participants were remote, councillors in this case are able to decide if they wish to attend the meeting physically or virtually, with a very similar user experience in either mode. The system supports the display of meeting minutes to the councillors, the output from local cameras within the venue, integration for senior staff members, and the capability to provide for a public gallery.

This is a turnkey solution. The P.A. People provide the entire package - staging, microphones, vision monitors, PTZ cameras, control, vision mixers, networked audio mixer, streaming outputs, and a robust internet connection to facilitate the entire solution.

Case Study 4 - Out of the box... intercom solution provides internet connectivity and capability

Our fourth case study involved working with one of our technology partners for the provision of a remote production intercom solution as part of a larger virtual event.

The event involved a number of sites, each of which required an integrated production intercom solution so that the event staff could produce the event and manage the talent. From a central facility in Sydney, the event producers were able to talk with their team members in another Australian capital city and talent in South East Asia as if they were in the same room. The system included one of our Clear-Com Eclipse HX IP-enabled intercom frames located in a Sydney data centre, connected

via the internet to each of the three sites. Users were provided with a physical Clear-Com KeyStation, or an instance of Agent-IC (Clear-Com's iOS and Android mobile phone application) to provide access to the comms system. The system was also equipped with remote four-wire access through the use of a Clear-Com E-Que IP interface.

"The Clear-Com Eclipse product suite is unique; it provides internet connectivity and capability out of the box in a way that no other hardware intercom manufacturer supports", commented Paul Barrett, Event Technology Architect at Barrett Evolution.



Our Capabilities

Our toolkit to facilitate remote production for virtual events is expanding every day.

Intercom

- The Clear-Com intercom portfolio is natively IP-enabled; perfect for virtual events
- We have cloud-hosted intercom frames available to support short-term virtual events
- Clear-Com supports a number of different audio transport standards for use in wide area networks, from G722 and SIP, through OPUS and WavPack, and uncompressed options where appropriate
- Clear-Com endpoints connect natively to their host Intercom frame over IP, generally without changes to firewall settings
- We can integrate local frames with our cloud services for specialist applications

Video

- Our systems include PTZ cameras and controllers. We can deploy one or more PTZ cameras to a remote site, connect it back to the host site, and retain full central control, including PTZ and camera functionality
- Where deploying a camera is unwarranted or simply not an option, we can bring content in from a standard web browser by providing a unique URL. With this capability we can name instances, control camera resolution, and a myriad of other parameters remotely
- We can create high-resolution, low-latency, on-demand video links between sites over the internet for one or multiple cameras, or other video feeds
- We have physical and virtual vision switchers and mixers to switch your event and add overlays to create professional content. We have output devices to display content where there are local participants, or as monitors for participants

Audio

- All of our remote production solutions have a special focus on the integration of audio
- Audio transport can be stand-alone, integrated into our video transport systems to ensure synchronicity, or our intercom systems for redundancy, or all three options
- We have a range of audio solutions including conference discussion systems, auto mixers, radio microphones, studio monitors, amplification, and audience loudspeaker systems available
- Audio is generally broken out of video streams to provide the flexibility and responsiveness that only a hardware surface can provide

Software

- Many of our remote production solutions are based on specialised licensed software
- In some instances, it may be appropriate to work with the client or a local production partner to provide appropriate hardware, while we provide appropriate short-term software licensing. Examples include internet-based video links and the Clear-Com AgentIC intercom solution

Networking & Computer Hardware

- We have the infrastructure and the capability to provide networking hardware and solutions to support any virtual event or remote production, including cloud-based facilities for virtual production
- We have an extensive array of computing hardware suitable for producing and contributing remote content, along with converters and interfaces for most input and output formats



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Call us to discuss your next event:

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