



How NRENs are keeping musicians and artists connected

The COVID-19 pandemic has drastically changed music performance as we know it, with musicians and artists having to adjust to performing arts through a screen. In this context, NRENs have had a vital role in strengthening the community despite the difficulties posed by the switch to online learning and performing. Together, they have successfully been responding to the various lockdowns with new and innovative services for artists, musicians, and students.

On 27-28 April, the community gathered online for the 2021 edition of the Network for Performing Arts Production Workshop (NPAPW), a free event where experts exchanged experiences and lessons learned after more than a year without live concerts. Attendees from NRENs and other institutions from Europe and beyond met online to discuss and assess new ways for musicians to rehearse and perform collaboratively online. We asked several attendees to describe their experiences, and how they have contributed to the success of the global arts & humanities community in what has been a very challenging time.

Picture
One of the online “Quarantine Sessions” organised by the Center for Computer Research in Music and Acoustics at Stanford University. The concerts were broadcasted live with artists performing from around the world.



Domenico Vicinanza, Coordinator for the Arts and Humanities for GÉANT

“GÉANT and Internet2 have a long tradition of working with the arts & humanities community, introducing, supporting, and coordinating the development and adoption of advanced network technologies in this fascinating field. NPAPW is an annual gathering of technologists, network experts, performing artists, faculty members and students. Historically it has focused on innovative technologies in the performing arts that utilise advanced networks provisioned by Internet2, GÉANT, and partners across the globe. This year’s workshop explored emerging solutions and lessons learned during 2020, including the transition to substantial reliance on home broadband connections. It was presented in a virtual, condensed format, with interactive demonstrations, tutorials, and panels, and will be followed by a series of webinars offered throughout 2021 focusing on advanced networked technologies enabling master classes, remote auditions, and multisite performances.”



Bartłomiej Idzikowski, Poznan Supercomputing and Networking Center (PSNC)

“PSNC started supporting artistic communities already at the very beginning of the pandemic, thanks to the available equipment and our team’s broadcasting experience. A spectacle at Teatr Nowy, one of the most famous Polish theatres, was transmitted in less than 32 hours after the official closure of theatres was announced. It was the very first time, since the outbreak, that an event was live streamed in alternative to a regular performance, here in Poland. After that, tens of other performances were prepared and delivered via Internet both live and pre-recorded: theatre productions, live concerts, video clips, festivals, and films. eduMEET played an important role in many of these events, as an easy and reliable tool for remote participation and artistic collaborations. Other dedicated tools were also developed, such as Concert Machine - an open web instrument intended to inspire composers and listeners, as well as to provide a telematic experience to the audience.”



Maria Isabel Gandia, Consorci de Serveis Universitaris de Catalunya (CSUC)

“Organising remote performances through advanced networks during the pandemic has been complicated, to say the least. The network was already in place, but almost everybody was at home using their own internet connections. Despite the difficulties, artists reinvented themselves and countless amazing initiatives, colorful performances and home concerts have been carried out in these last months. Before COVID-19, we used to receive queries about remote collaborations from time to time and we helped with some of them. In the last few months, the questions have increased considerably, not only for big productions, but also for small collaborations of musicians who miss playing together live. As a Research and Education Network, we are here to support them and strive to provide them with the best tools and collaboration options.”



Claudio Allocchio, Consortium GARR

“GARR, together with Internet2, has been pioneering the support for the arts and humanities users for more than 20 years now. So, when in 2020 everything suddenly moved online, we were the immediate reference for a vast community of worldwide users seeking help. Queries about online teaching tools flooded our support services, both for LoLa and for the SWING projects, which were already in place before the pandemic. Our support teams became a worldwide ‘helpdesk’ for the community. We also started to work with eduMEET to create a profile for music education (now ready to be released as “HiFiMode”) and accelerated the development of ‘how to’ resources in the SWING project, making them more versatile and user friendly. We teamed up with many educators to help them experiment different ways of teaching music and arts online. We are proud of the feedback received from the users, and always work to improve our services. Many more in the community are now aware that networks have also a key role in arts and humanities education!”



Mårten Frojdo, Remote North – Nordic Centre for Digital Presence (NCDP)

“Remote North NCDP is a network which has developed a method for low latency two-way communication. The network consists of around a hundred culture schools, theaters, universities, organisations in the performing arts and the creative industries in the Nordics. The active network stretches from Tammerfors, Helsinki and Åbo in Finland (incl. the autonomous Åland islands) to Stockholm, Hallunda, Norsborg, Falun in Sweden and the cities of Lillehammer and Hamar in Norway. Recently, Coventry University in the UK has joined the network as well. In 2021 our goal is to include six new regions between Norway, Sweden and Finland on the 62-63 latitudes to the culture network. Thanks to the NRENS and the regional networks we have been able to share music and performing arts experiences during the pandemic despite tough travel restrictions. This shows how extremely important the networks are in supporting the new normal where artists, audiences and researchers need to congregate in this hybrid of physical and virtual presence.”



Sven Ubik, Czech National Research and Education Network (CESNET)

“The objectives of the work in the NPAPW community, supporting distance collaboration in live culture, are not directly related to the COVID-19 pandemic. However, due to the pandemic situation, the interest in distance learning and collaboration in live culture has naturally increased. CESNET has supported several online music events. We used a combination of low-latency MVTP technology and several other technologies according to local conditions and latency requirements. An example is a concert against totalism, organised traditionally on the anniversary of the Velvet Revolution in the Czech Republic on November 17. In 2020, the concert took place online. Another example is a series of online concerts Music Without Borders, organised by the Bohuslav Martinů Foundation, aimed to support Doctors Without Borders, which helped in the epicenters of the COVID-19 outbreaks, and to bring the music of leading musicians to listeners in this difficult time.”



Miloš Liška, Czech National Research and Education Network (CESNET)

“The pandemic and consequent lockdowns isolated artists all around the world and forced them to rehearse and perform at home. The shift towards home networks led to new and non-traditional tools for networked performing, such as eduMEET. At CESNET we have supported a couple of local jazz bands using the proven combination of JackTrip and UltraGrid. The expected obstacle was actually using these tools in connection with home networks. Their bandwidth was sufficient for the deployment of both technologies, but the users were struggling with Native Address Translation (NAT) and Firewalls. The pandemic has provided an unexpected extra motivation to develop new technologies to overcome the obstacles of relying on home broadband connections. UltraGrid is no exception in this sense. Its next version will bring a new NAT traversal functionality, a new mode for multipoint audiovisual transmissions and hopefully even better resiliency under adverse networking conditions.”

For more information about the NPAPW21 and to watch the recordings of the tutorials, visit <https://npapws.org/virtual-npapw21/>