

### MSI Delivers the U.S. Presidential Inauguration with the Help of Focusrite RedNet Interfaces

**Maryland Sound International provided sound for January's U.S. presidential swearing-in ceremonies with a RedNet backbone**



On the list of high-profile sound reinforcement gigs, the inauguration ceremonies of a President of the United States of America rank near the top. For the last dozen inauguration cycles, live sound production company Maryland Sound International (MSI) has provided sound services for various public and private inauguration events, including the past six swearing-in ceremonies. “Everything from the microphones that the incoming president talks into down the line to the PA is typically ours, and it’s a large team effort that I am proud to be a small part of,” says Benjamin Krumholz, a mixing, systems and RF engineer, and head of installations and integrations for MSI. Given the mission-critical nature of the events, MSI brings its decades of experience along with the most reliable gear in its inventory to the task. Since 2017, that inventory has included a backbone of components from Focusrite’s RedNet range of Dante™-networked audio converters and interfaces.

With the sweeping impact of the global pandemic, the 2021 swearing-in ceremonies marked a radical departure from previous inaugurations, shares Krumholz. “In the past, speaker coverage would include tens of thousands of people seated on the West Front of the Capitol and other additional audience areas surrounding the Reflecting Pool and into the National Mall. This year, it was reduced to literally two main speaker arrays, and a lot of infill stuff – we still had the front-of-house, and our crew of eight were also mixing the Marine band and the musical talent.”

“When we bought our first Focusrite systems in late 2017,” says Krumholz, “the idea was for a one-cable solution – data, device control and digital audio all over a single cable, with redundancy. We were used to running data cable for wireless networking, then running more network cable for device control networks, then running more copper cable for analog or AES audio – so many cables.” With RedNet convertors as their “audio multi-tools” of choice, MSI was able to replace its previously non-networkable fiber-optic solution with one that satisfied every cabling requirement. “For FOH Console interfacing we use the RedNet D64R 64-channel MADi bridge; RedNet A8R, RedNet A16R and RedNet D16R units for analog and AES digital-audio-to-Dante® conversion; the RedNet MP8R eight-channel mic pre and A/D converter when we need mic preamp-to-Dante Conversion; and RedNet PCIe R Cards for multitrack recording, interfacing computers with Dante. We have to set up systems that are extremely repeatable, expandable and reliable – efficiency to the max. Time that is wasted cannot be returned or refunded.

“As for distances between locations,” Krumholz continues, “Sometimes there are many hundreds or thousands of feet between signal input and output locations. Fiber optic cabling has become standard in our infrastructure and has expanded the way we wire and design our sound systems.”

Security and weather can add significant challenges during inauguration events, according to Krumholz. “Access to locations can be blocked or restricted at any time and without notice. Having equipment that is reliable and can be remotely controlled and monitored is a must. The entire show is outdoors and the weather is fairly predictable in January in DC – it’s going to be cold. Our equipment has to be able to handle being outside all month.”

For the inaugurations, says Krumholz, “signal travels from FOH to the main left/right amp rack positions as Dante/RedNet using fiber optic cables. The signal is then converted to AES audio to be fed into the amplifiers. Typically for inaugural events, there would be many delay positions on the inside and outside of the Capitol Grounds. All of those positions are also typically fed Dante/RedNet with fiber-optic runs of anywhere from 500 feet up to 2500 feet away.”

Since purchasing the Focusrite systems, Krumholz says, “RedNet gear has been the circulatory system of most of our shows. It is the way we get signals from one place to another.” MSI’s RedNet systems are “infinitely expandable and configurable depending on the inputs and outputs needed,” he continues. “Format is much less of an issue than it has been previously. Set up time and planning for major events

has been streamlined. Anywhere we have a RedNet Drive Rack we know we can get access to our control network, intercom systems and audio inputs and outputs.”

Expanding availability of multicore fiber optic cabling yields more data and signals with fewer connections and cables and lighter trunks. “When you are making hundreds and thousands of connections in a month or year,” Krumholz elaborates, “and you can reduce that number by half, it saves a lot of time.”

When its previous systems were at the end of their life, replacing an entire infrastructure was a large investment for MSI. “But we probably would have had to invest double to get the same quality and features with other manufacturers,” says Krumholz. “We pride ourselves on investing in the best-sounding and highest quality products in a given category. People choose us when their audience matters. We need products that can stand up to whatever we can throw at them. We have not been disappointed with our RedNet investment.”

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