



130 CLAREMONT AVENUE, NEW YORK, NY 10027-4698

Position Description

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| Title: | Network Systems Engineer |
| Department: | The Orto Center for Distance Learning and Recording Arts |
| Reports To: | Assistant Dean for The Orto Center |
| Supervises: | N/A |
| Internal Contacts: | Students, Faculty, and Staff |
| External Contacts: | Technology vendors and manufacturers, University Network Engineers, K-12 media specialists and technical staff, and the general public |
| Status: | Full-time; Non-exempt; Union |
| Salary Range: | \$43.66 per hour; scheduled and paid at least 35 hours per week This position is covered by a collective bargaining agreement between Manhattan School of Music and I.A.T.S.E. Local 1 |
| Start Date: | January 2026 |

Manhattan School of Music (MSM) is located in New York City's Morningside Heights neighborhood and enrolls approximately 1,050 students in undergraduate, graduate, post-masters, and doctoral programs each year in addition to its other program offerings including its distinguished Precollege Division, MSM Summer, and a new BFA Online degree program that will launch in 2026. Students enrolled at MSM hail from nearly all 50 states within the United States and approximately 50 countries. This rich tapestry of backgrounds and cultures is foundational to MSM's commitment to providing a welcoming and student-centered environment.

Position Overview:

The Orto Center for Distance Learning and Recording Arts at Manhattan School of Music seeks an experienced Network Systems Engineer who can integrate IT networking expertise with broadcast engineering standards to safeguard uninterrupted content delivery and contribute to the continued evolution of MSM's digital production environments. This role manages key network IP infrastructure that supports The Orto Center's recording and livestreaming activities, which total over 1200 events per year. Its pioneering Distance Learning program connects students and faculty to teachers and artists all over the world using low-latency videoconference technology and studio-quality audio/video equipment.

DOMAINS:

Network and Systems Administration

- Maintain The Orto Center's network and data storage infrastructure, which supports all livestreaming, synchronous distance learning videoconference events, and audio/video recording activities. Includes LAN subnet administration, plus monitoring connectivity to WAN (redundant Internet2 network links via Columbia University) and the MSM administrative network.
- Maintain the computing environments for all departmental program activities, including centralized data servers, routers, and switches. Responsible for installing and maintaining servers and workstations, configuring and testing hardware, networking software, operating system

software, and application software. Troubleshoot and investigate issues, and evaluate system performance on a regular basis.

- Maintain and monitor network integrity and server deployment; analyze and isolate issues; ensure connectivity and availability to specific users and workstations.
- Perform network address assignment; assign routing protocols and routing table configuration.
- Implement authentication configuration for department services.
- Implement network security measures to protect data, software, hardware, and networking environment. Maintain intrusion detection systems, monitor regularly, and develop disaster recovery plan.
- Perform regular back-up operations, ensuring all file systems and system data are successfully backed up to appropriate media or servers.

Systems Programming

- Maintain the consolidated long-term data archiving server system for all department audio and video content.
- Maintain application integrations and updates for the digital learning platforms administered by The Orto Center, including MSM's Canvas learning management system, Kaltura video content management system, Simple Syllabus, Respondus Lockdown Browser and Monitor, and others now in use or to be added in the future.
- Work closely with MSM's IT Department to ensure student registration and account data is synchronized correctly between MSM's Student Information System (Jenzabar) and The Orto Center's platforms, such as Canvas and Simple Syllabus.
- Design, develop, and implement systems to aid workflow processes. Consult with department users on needs assessment on a regular basis.

Distance Learning Technical and Infrastructure Support

- Provide audio, video, and networking (AVN) technical support for distance learning transmissions of small- and large-scale programs with partner institutions in the United States and around the world. Includes videoconferencing and web streaming technologies configuration, testing, and operation.
- Integrate video equipment into technology infrastructure for program events. Diagnose and resolve technical issues related to SDI video transmission, routing, and switching.
- Interface with Recording Arts staff on the integration of audio systems and equipment for events in Distance Learning studios and performances spaces.
- Execute video capture, editing, and post-production of recorded Distance Learning programs, including video format conversions and data compression techniques, as needed.
- In collaboration with Recording Arts video engineer, maintain Distance Learning studios, audio and video equipment, and computers. Run routine diagnostics to ensure system performance and functionality.

Administrative

- Participate in planning meetings and production debriefings for Distance Learning program events.
- Research and recommend technology integrations and upgrades.
- Maintain written system documentation, including diagrams for The Orto Center's networking infrastructure, which connects four control rooms, two distance learning studios, two machine rooms, eight performance venues, and two office spaces on MSM's campus.
- Attend monthly staff meetings; report on systems technology.

JOB REQUIREMENTS:

Network/Systems Administration/Programming

- Strong understanding of TCP/IP networking, VLANs, routing, switching, firewalls, VPNs, DNS, DHCP, ACLs, NAT. Experience with Cisco, FS, HPE Aruba or similar networking equipment.
- Ability to assess network capacity, forecast bandwidth needs, and troubleshoot congestion issues to prevent latency, packet loss, and performance degradation.
- Strong knowledge of Windows and macOS operating systems required.
- Experience with deployment, configuration, and maintenance of network infrastructure, including knowledge of network diagnostics and security using CLI tools (ping, iperf, traceroute/tracert, SSH, etc.).
- Working knowledge of video conference technologies (LOLA, MVTP, ITU H.323, H.460, SIP).
- Knowledge of system administration, databases, content management systems, and basic programming (e.g., Samba/CIFS/NFS, MD based RAID arrays, SQL, PHP, C++, Python, JavaScript, HTML5, CSS, Bash/shell scripting, RESTful service client and server implementations, etc.).
- Basic knowledge of third-party IAAS systems (e.g., AWS, GCP, Azure).

Video

- Strong understanding of professional digital video signals (SDI, HD-SDI, HDMI; interlaced vs. progressive, aspect ratios, frame rates, color space).
- Understanding of audio and video clock/sync signal generation and distribution.

Streaming

- Practical knowledge of audio and video data compression (H.264 profiles, etc.), live streaming protocols (RTMP) and encoding, and non-linear video editing (e.g., Adobe Premiere, Final Cut).

Audio

- Practical knowledge of the fundamentals of pro audio technology: signal flow and gain structure, Audio-over-IP (Dante preferred), signal processing, microphone patterns and type, cables and connectors, amps and speakers, bus architecture in analog and digital mixers. Experience with Steinberg Nuendo, Cubase, or Protools a plus.

Other Requirements

- Willingness to work flexible hours (weekends or evenings for occasional special events).
- Basic mechanical aptitude for facilitating physical installation of equipment.
- Background and understanding of classical and jazz music, a plus.
- Must be able to climb and lift at least 25 lbs to move or install equipment.

CONTACT INFORMATION:

Send cover letter and résumé including three professional references to:

Chris Shade
Assistant Dean for The Orto Center
cshade@msmnyc.edu
No phone calls, please.

Equal employment and equal educational opportunity have been and will continue to be fundamental principles at Manhattan School of Music, where employment and enrollment are based upon personal capabilities and qualifications without discrimination or harassment because of race, color, religion, sex, sexual orientation, gender identity or expression, the status of being transgender, age, national origin, marital status, citizenship or veteran status, disability, or any other characteristic protected by law. Manhattan School of Music does not permit retaliation against individuals who oppose a discriminatory practice or participate in an investigation.