Music Performance & Instruction Over High-Speed IP Networks

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Manhattan School of Music

Internet2 Member Meeting
New Orleans
October 14th, 2008
Manhattan School of Music Distance Learning

- 1996
- 1st Conservatory in United States
- Concept: Access & Accommodation
- Maestro Pinchas Zukerman
MSM Distance Learning

- 27 of 50 States
- 15 Foreign countries
- 1700 students/each year
- Wide-adoption from MSM Faculty
- Jazz, Orchestral Program, Voice Dept.
Collaborators & Partners

- Conservatories
- Music Schools
- Performing & Presenting Organizations
- K-12 Schools
- Community Centers, Hospitals
Program Content

Types of Music Applications

- Masterclasses
- One-to-One Lessons
- Clinics
- Coachings
- Workshops
- Professional Development
- Composer Colloquia
- Sectionals
- Educational & Community Outreach
Program Content

Types of Music Applications

- “Telementoring”
- Recruitment Demos
- Remote Auditions
- Mock Auditions
- Panel Discussions
- Humanities Exchanges
- Webcasting
Classical Programs with Manhattan School of Music

Pinchas Zukerman

Thomas Hampson
Jazz Programs with Manhattan School of Music

Kenny Barron

Dave Liebman
Friends and Family Weekend
2nd Annual Student Showcase
Concert & Webcast

Thursday, October 16th
7:30pm

Locations: Miller Recital Hall or
http://distancelearning.msmnyc.edu/live
Issues & Challenges
H. 323

• Limited Frequency Bandwidth (7 Khz)
• Mono sound
• Low bit-rate sound quality (8-bit)
• No Dynamics or Dynamic range
• Loss or absence (muting) of sound
• Network & Codec Latencies
• Acoustic Echo Cancellation Artifacts
Audio-Visual Illustrations
Application Requirements

• Transparent & seamless virtual environment conducive to learning/teaching. (Low–Latency)
• True, accurate sonic representations of the acoustical properties of sound and music.
• Full-frequency response (50 Hz-22 Khz) or > full human auditory bandwidth
• Stereo Sound
Application Requirements

Structural Elements of Music:
Melody; Harmony (pitch); Rhythm (duration); and Form

Expressive Elements of Music:
Timbre, Dynamics, Tempo, articulation, texture with contrasts & changes therein
MSM-Polycom Collaboration

Live Music Mode
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