ConferenceXP Overview

• Platform for Real-time collaboration
• High-quality multipoint conferencing
• Full-screen, real-time video at 30 fps
• Built-in presentation capability, whiteboard & screen sharing
• ConferenceXP is a shared source platform
• ConferenceXP Source is available from: http://codeplex.com/ConferenceXP

Diagnostics

• Problem: Understanding network failures is very difficult
• Approach: Aggregate connectivity information at a diagnostic service
• Details (similar to multicast beacon):
  – Leverage the diagnostic info in RTCP Receiver reports & Sender reports
  – Each RTCP packet is copied over unicast to the diagnostic service

Client UI Changes:

• Tool tips show throughput warnings
• Missing participant "Ghost" Icon
• Detail view via Web Service

Security

ConferenceXP 5.0 provides two kinds of password-protected venues:

• Weak: Password required to access the mapping from venue name to multicast IP. Protects against accidental access.
• Strong: Password is hashed into a symmetric encryption key. All stream data is encrypted with the key.

Reflector Enhancements

Enhancements for NAT environments:

• ConferenceXP 5 allows multiple clients to run behind a single NAT device
• JOIN protocol removes assumptions about which ports will be used.

Multi-Reflector:

• Multiple reflectors can be configured to communicate between themselves.
• Improves scalability for cases where there are many unicast clients.

High Quality Audio

• Changes to DirectShow buffering enable high-quality uncompressed audio
• Higher quality compressed formats added
• User control via advanced audio configuration UI

(Credit: José Feghali: TCU)