



Allen Independent School District

Allen Independent School District Case Study

Preparing for Microsoft Lync with Network Voice Readiness Assessment

Prior to embarking on its migration to Microsoft Lync Unified Communications, the Allen Independent School District engaged AudioCodes Professional Services to carry out a Network Voice Readiness Assessment. The aim of the assessment was to check that the district's existing network infrastructure could successfully support the addition of the Lync traffic without affecting the performance of existing services.

Background

The Allen Independent School District serves the rapidly growing city of Allen, Texas, a suburban community located 23 miles north of Dallas. Student enrollment has more than doubled since 1989, bringing the current number of students to more than 19,000 in grades K-12. Students attend one of 16 elementary schools, three middle schools, one freshman center and one high school.

With over 11,800 student and teacher workstations, close to 1,000 computers in administrative offices, and over 2,000 tablets, the Allen Independent School District maintains a major investment in their network infrastructure and computing technology. Providing connectivity to the district's workstations is a sophisticated fiber and Ethernet network, connecting each of the 21 school facilities and both a primary and back-up datacenter facility. Connectivity to the Internet is accomplished using advanced network filtering and anti-virus systems located in district's data centers, ensuring the students have a safe and productive educational experience.

Challenges

In 2011, the school district recognized that their aging legacy TDM key systems and Centrex service was too expensive and inflexible for the needs of the expansive district going forward. As a result, the district had made a decision to move to voice-enabled Microsoft™ Lync™ Unified Communications - for both administrative and classroom use, facilitating significantly greater flexibility, an improved educational experience and reducing the cost of operations over the TDM equipment.

Before beginning the Lync migration, a key milestone was identified to verify the performance of the district-wide network and its ability to reliably support real-time voice and video without disrupting other network applications. "It was important for the district to have a clear understanding of whether we had a solid foundation for our Microsoft Lync implementation before beginning our transition", noted David Spann, Executive Director of Technology.



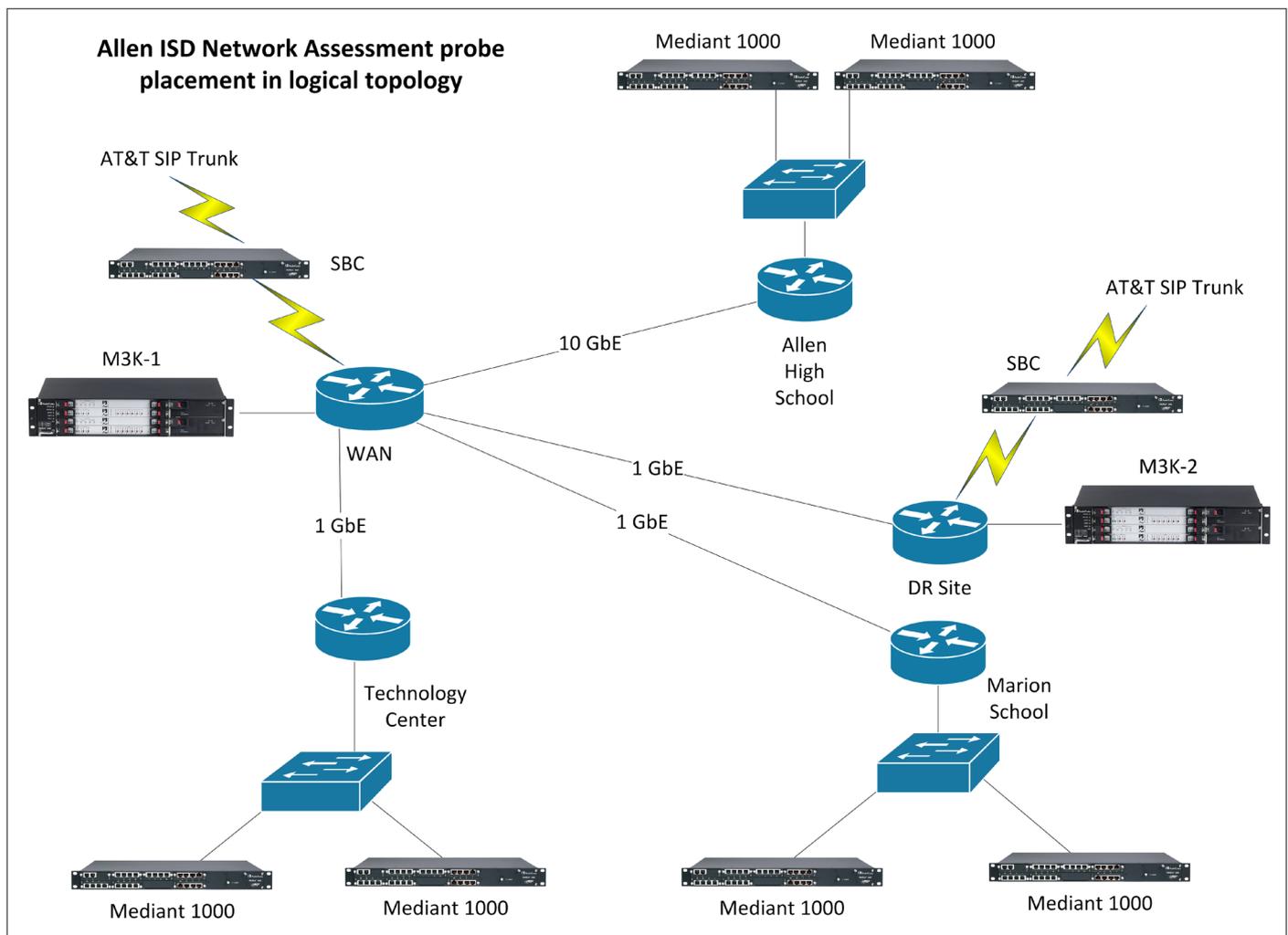
Solution

To measure and document the performance of their network, the district contracted to perform a Network Voice Readiness Assessment (NVRA), a service offered by AudioCodes Professional Services.

The service starts with a comprehensive examination of the network topology, equipment, facilities and assets. During the examination, points in the network are identified for installation of load simulators and probes, allowing modeled call traffic generation while measuring the performance of the network. To make future testing and verification much easier, AudioCodes utilizes Mediant Media Gateways and E-SBCs to act as both NVRA load generators and probes. Once the equipment was put in place, a week-long load simulation was performed, generating worst-case call traffic on the network while metrics were collected on packet loss, jitter and latency. Once the simulation was completed, a detailed NVRA report was created, showing the performance of the network over time and under various conditions.

“As the Lync implementation progresses, the district will also be consolidating the various TDM trunking facilities to SIP Trunks, to reduce costs and improving flexibility. The migration to SIP Trunks will be facilitated by upgrading the AudioCodes Mediant SBAs with E-SBC licenses, providing interoperability, and security.”

David Spann, Executive Director of Technology



Results

The results of the district-wide NVRA were very positive, with the network being more than capable of handling the soon-to-be-implemented Microsoft Lync services. However, the testing did uncover an unusual spike in latency and packet loss during certain hours, just after the school day was completed. After some investigation, it was discovered that the spike in packet loss and latency was the result of congestion on the network due to a pre-scheduled network backup system flooding the routers with file transfer traffic.

David Spann commented “completing AudioCodes network voice readiness assessment gave our IT staff and me the confidence to move forward with our Lync deployment, knowing that our network was up to the task and that any issues that might arise were not the result of our network.”

“completing AudioCodes network voice readiness assessment gave our IT staff and me the confidence to move forward with our Lync deployment, knowing that our network was up to the task and that any issues that might arise were not the result of our network.”

David Spann, Executive Director of Technology

What's Next

The Allen Independent School District is well on their way to implementing Microsoft Lync 2013 district-wide, using the voice and video features to improve communications between staff members and enable distance learning between district facilities. “Initially the district plans to utilize AudioCodes Mediant Survivable Branch Appliances (SBAs) to provide survivability at each facility”, said David Spann. “As the Lync implementation progresses, the district will also be consolidating the various TDM trunking facilities to SIP Trunks, to reduce costs and improving flexibility. The migration to SIP Trunks will be facilitated by upgrading the AudioCodes Mediant SBAs with E-SBC licenses, providing interoperability, and security.”

More Information

Learn more about AudioCodes Network Voice Readiness Assessment and other services on the AudioCodes Professional Services pages at: <http://www.audiocodes.com/professional-services>

For more information on the AudioCodes Mediant Survivable Branch Appliances and complete portfolio of Microsoft Lync-certified solutions, see: <http://www.audiocodes.com/microsoft>

About AudioCodes

AudioCodes Ltd. (NasdaqGS: AUDC) designs, develops and sells advanced Voice over IP (VoIP) and converged VoIP and Data networking products and applications to Service Providers and Enterprises. AudioCodes is a VoIP technology market leader focused on converged VoIP & data communications and its products are deployed globally in Broadband, Mobile, Enterprise networks and Cable. The company provides a range of innovative, cost-effective products including Media Gateways, Multi-Service Business Routers, Session Border Controllers (SBC), Residential Gateways, IP Phones, Media Servers and Value Added Applications. AudioCodes' underlying technology, VolPerfect HDTM, relies on AudioCodes' leadership in DSP, voice coding and voice processing technologies. AudioCodes High Definition (HD) VoIP technologies and products provide enhanced intelligibility and a better end user communication experience in Voice communications.

International Headquarters

1 Hayarden Street
Airport City, Lod, 70151, Israel
Tel: +972-3-976-4000
Fax: +972-3-976-4040

AudioCodes Inc. USA

27 World's Fair Drive, Somerset, NJ 08873
Tel: +1-732-469-0880
Fax: +1-732-469-2298

Contact us: www.audiocodes.com/info
www.audiocodes.com

©2013 AudioCodes Ltd. All rights reserved. AudioCodes, AC, HD VoIP, HD VoIP Sounds Better, IPmedia, Mediant, MediaPack, OSN, SmartTAP, VMAS, VolPerfect, VolPerfectHD, Your Gateway To VoIP and 3GX are trademarks or registered trademarks of AudioCodes Limited. All other products or trademarks are property of their respective owners. Product specifications are subject to change without notice.

Ref. # LTRM-06048 08/13 V.1