



## Sino Matters and Online Learning



Sino Matters is an executive education institute focusing on language training for top executives in Multi-National Enterprises. As you'd expect, the Sino Matters' clients include Fortune 500 companies with executives that are continually traveling, so Sino Matters provide online training one-on-one.

"We must provide our clients with high-quality Skype or FaceTime lessons whenever they travel inside and outside China. We needed a solution that could deal with poor bandwidth and that was very stable. The SNO solution works perfectly" says Curt Bergstrom, President of Sino Matters Ltd..

Applications such as Skype or Facetime are very sensitive to poor internet connections with a lot of packet loss or high latency however. While some locations didn't seem to have bandwidth, packet loss or latency issues when the class was being conducted, other locations suffered from dropped calls or frozen pictures. "This resulted in rescheduled or cancelled lessons, and were affecting customer satisfaction", said Curt. "Sino Matters needed an internet solution that could deal with poor internet or limited bandwidth issues."

Having tried many different internet providers and solutions, Sino Matters chose UMBRA's Secure Network Optimization ("SNO") Service for their primary locations. Because the SNO Service works over-the-top of their regular internet connection, the institute had the service installed in about ½ hour. Further, using the capabilities inherent in this second generation SD-WAN, they were able to experience benefits associated with WAN optimization.

Two key features of UMBRA's SNO Service were of interest to them from an online learning perspective: Advanced Smart Routing and Lossless Compression.



Advanced Smart Routing was a key technology that optimized the operation of FaceTime and Skype as online learning solutions. The Advanced Smart-Routing feature is a key feature of the SNO service, and a core part of UMBRA's Global Virtual Network (GVN). Advanced Smart-Routing is deployed throughout UMBRA's GVN grid, ensuring the optimal routing for any destination around the world, reducing latency and routing around congestion points and other network anomalies that would otherwise impact the quality of the live video feed between the teacher and the student.

Lossless compression was important as component in a high quality video experience. Many solutions that accelerate or optimize an internet connection do so by compressing the data so that they are able to push more data through the existing internet connection. Compression works well for file transfer and other static content, but for live video or video-conferences, compression of the data stream leads to rapid reduction in video frame-rate.

However, a key-feature of UMBRA's GVN is lossless compression of the traffic without loss of frame-rate quality. This lossless compression is achieved by, among other methods, avoiding bloat in the packet transmitted and adjusting compression levels and transfer buffering rates based on overall network conditions.



Curt Bergstrom noted that, "I didn't want to have to worry about internet and network issues. With the SNO service, I can now think about the language education that I am providing". Sino Matters is now able to provide a better experience for its students, and was able to retain more clients.