



Extricom enables new iSchool facility to reach its full performance potential, bringing the most advanced learning technology to the entire faculty.

In 1996, the Cumberland Academy in Tyler, Texas, opened its doors to 30 students. It became the first Charter School in East Texas in 1998 with 60 students and in late 2010 its newest development was recognized nationally as the first iSchool to be built in the State of Texas, and now serves approximately 500 students.



Cumberland's mission is to provide a superior academic program enhanced by training in performing arts and a technologically advanced curriculum. Cumberland is the 2nd Charter School in the nation to partner with Apple, Inc., Highmark School Development, Promethean, Waterford, Pearson, and Yamaha to bring the most advanced technology coupled with performing arts to their students.

The installation of a robust, intelligent wireless LAN was essential to ensure the smooth operation of each of the learning technologies, including Waterford Early Learning v4.4 wireless, Pearson SuccessMaker v3.0 and wireless Apple Network Account access. The obvious choice? Extricom.

Multi-Technology Challenges

Introduced to Extricom by local IT installation company Skywire, Galen Manning, IT Director at Cumberland Academy was keen to learn more about the architecture of the solution. Together they visited another local school that was already enjoying the benefits of Extricom and that was able to demonstrate first-hand how well the system performed and how simple it was to manage and maintain, with centralized administration and management of each AP controlled by the switch.

Other vendor solutions were briefly considered. Galen had experience with HP ProCurve with Culubris Radios but once the number of associations, density of the school and client bandwidth numbers required were realised, it was evident that no other solution would solve the potential issues that would have arisen.

Galen confirms '*We found no other wireless solution that was able to provide an acceptable student experience using the Waterford Early Learning curriculum. The fact that both Extricom and Skywire were willing to perform the installation and prove the effectiveness on the Waterford product before we had to make any financial commitment proved to me their confidence in the solution – and they were right!*'

Flawless Deployment

The wireless deployment was to cover the entire 40,000 square feet of the school campus, throughout the two storey classroom buildings, with the intention that it would be immediately used to run all network file transfer and account traffic, the entire curriculum, testing, grades and administration work. This represents critical primary classroom content and therefore it was imperative the deployment ran smoothly with no consequential downtime. Confident from the demonstration he had seen

I can't say enough about the benefit that a completely reliable network is to a classroom. If the students rely on the network to receive all of the curriculum, it has to operate the entire school year without any issues so that the students can get the most out of the material.

Mr Galen Manning
IT Director, Cumberland Academy

Project Scope

Bring seamless wireless connectivity to a Charter School recognised for its technologically advanced curriculum that would enable flawless faculty operations and improve the student learning experience.

Solution

Entire two storey school, totaling 40,000 square feet was covered using:

5 x MultiSeries 1000 Switches

29 x EXRP-30n Access Points

Results

Smooth installation and minimal ongoing maintenance has highlighted the TCO and ROI of the Extricom solution. Improved teaching facilities and student learning experience has resulted in higher achievement and therefore parent and student satisfaction.

at the other school, Galen was certain that Extricom was the only solution that could guarantee an acceptable class room experience. With the assistance of an Extricom Engineer and Skywire, Galen successfully installed 5 MultiSeries 1000 switches and 29 EXRP-30n access points. Configuration consisted of a single b/g/n guest blanket with all of the others as 'n' only. iPods and Guests were mapped on 802.11 b/g channel blanket on 1 switch, Teachers and Administration on 802.11n-only 1/3 associated to an SSID that uses the 2.4GHz channel and 2/3 to the 5GHz channel. Each classroom had an access point and every 4-5 classrooms were allocated a switch.

'The solution is intuitive and reliable. We make some very intense demands on the hardware, but it performs well. Once it is installed, there is very minimal maintenance' confirmed Galen.

Business & Technical Benefits

When asked about the initial reaction from staff and students following the wireless implementation, Galen commented 'There have not been any issues since installation, so the teachers and students just expect it to work. The attitude has been neutral, but I think that this is the best reaction you can get for an installation like this. It allows teachers to focus on the students and the students to focus on their work'.

Further expansion of the school site is planned for the coming year and the school is already committed to extending the Extricom solution throughout the new development to allow the seamless and continuous roll-out of their learning facilities.



When asked to analyze any final thoughts regarding the resulting Total Cost of Ownership, ROI and other cost savings achieved with the Extricom deployment, the results were clear. Galen explained *'We had already invested over \$1 million on hardware and curriculum, the Extricom cost was considered an essential part of ensuring that the other larger technology and curriculum investment would result in better student achievement and satisfaction. As a Charter School of choice, the parents and students who attend our school do so because they make the conscious decision to come here. If their confidence falters for any reason (and wireless failure is perceived as systematic failure in a digital school like ours), they would take their children to another school and we would not be able to operate.'*

