UNIVERSITY LEVERAGES FLEXIBLE NEXT GENERATION NETWORK

Challenges

This university connected with Vandis while they were in the planning stages of designing their wired and wireless infrastructure for a new building on campus. They were looking to achieve and implement a network design that met their current and future needs before the building construction was finished. Vandis was tasked with the challenge of designing a new network that encompassed the broad spectrum of requirements the university had laid out. In addition to these requirements, Vandis had to work around the construction schedule which was often subjected to delays caused by harsh winter conditions.

Selection Criteria

The building being constructed was going to have its own network (wired and wireless) that was separate from the existing campus network so that this department could maintain and control it themselves. Vandis set out to design a pre-approved network that would incorporate the latest hardware available. We included a security solution at the edge and a wireless network throughout the building so that the department had the ability to support IP cameras and IP phones when necessary. At the core of the network, Vandis was asked to use a technology that was able to handle 10g natively and upgrade to 40g if needed. With the amount of labs in this department and large quantities of data due to the research being performed, this was an important feature that needed to be met. The last criteria Vandis had to take into consideration when designing this network was to make it future proof in the sense that it could be upgraded as needed. This flexible architecture was required in order to accommodate growth and be able to integrate with any of the other technologies that exist on campus if necessary.

Solution

With the tight windows Vandis had to operate in due to the construction schedule, our project managers played a crucial role in creating flexible schedules for our engineering team so that they were available when needed. When building the network infrastructure, Vandis used Juniper Network's dual core switches with 10g blades to ensure users receive optimal connectivity. Vandis felt that going with Juniper was the

best option because it met all the requirements set forth by the university and they already had familiarity with Juniper gear from past experience. For the wireless portion of the network, Vandis suggested the university expand their use of Aruba Networks due to their familiarity with the solution and ability to easily integrate with the rest of the university. The school decided to purchase Aruba AP-225s, controllers, Airwave and ClearPass. While working to implement the Aruba controllers and Clearpass appliance for the new building's network, this university brought to Vandis' attention that users on their existing campus network were having connectivity problems when signing into the wireless network. They requested that Vandis evaluate their campus network and diagnose the problem. Vandis proposed they replace their Windows Radius servers with Aruba ClearPass as this would provide an upgrade to their campus network and resolve the issue.

Results

With the new solution deployed, this university now has a flexible next generation network that will allow them to integrate well with other technologies if the need should occur. They now have ample bandwidth to support this building and also the capability to increase bandwidth when the situation arises due to the Juniper chassis being extremely flexible. In addition, this design allows for support of future access points and newer .ac models from Aruba. Overall, Vandis was able to design and architect a best of breed network for this university that is able to carry them forward for the next 5-7 years.