ASPIRE
Powering Business Transformation

Bay State College

Bay State College Leverages Cloud-Managed SDWAN to Provide Contactless Tracing for a Safe Return to Campus

Bay State College

is a private, career-focused college with campuses in Boston's Back Bay and Taunton, MA. The college prides itself on providing small classes and individualized attention taught by a faculty of industry professionals. It offers more than 20 degree programs leading to Associate and Bachelor Degrees in diverse areas of study, including day, evening, and online classes in Business, Health Sciences, Nursing, Physical Therapist Assistant, Information Technology, Entertainment Management, Fashion Design, and Criminal Justice.

Planning for a Safe Return to Campus

After the coronavirus pandemic had closed college campuses across the country during the Spring 2020 semester, Bay State College began looking for innovative ways to safely resume classes on campus in the fall and to keep its campuses operational should any members of its educational community become infected. The IT team, under the leadership of Jeffrey E. Myers, CIO for Bay State College, wanted to adopt a layered approach that could offer multiple solutions, including contact tracing, considered by health departments to be one

of the most important efforts to help slow the spread of COVID-19.

In addition, the college was looking to upgrade its wireless networking capabilities. Myers and his team wondered: *Could they achieve both simultaneously?*

Cisco Meraki MR Solution

Myers turned to Cisco for guidance about how their wireless technologies might be deployed throughout both campuses. Cisco brought in Aspire Technology Partners. Aspire helped Bay State College narrow their selection for a cost-effective and multi-functional wireless tracking solution that could provide campus-wide Wi-Fi access as well as an unobtrusive, contactless contact tracing solution.

In close partnership and consultation with Bay State College, the Aspire team recommended a Cisco Meraki MR wireless solution, which would provide unparalleled wireless networking and also offered a unique capability for the campuses' contact tracing needs. In addition to Wi-Fi 6 support with powerful coverage for both indoor and outdoor environments, each Meraki Access Point (AP) contains an integrated Bluetooth Low Energy (BLE) radio capable of transmitting BLE Beacons, plus scanning and locating BLE devices.

The IT teams at Bay State and Aspire leveraged special campus ID badges, card-holders, and lanyards, each containing a Bluetooth Low Energy beacon capable of transmitting the MAC address of the devices. Together, the IT teams also developed a tracing program that integrates the Meraki APs and BLE cards with a secure SQL database to capture real-time location data for anyone on campus.

Solution Implementation and Integration with Campus Protocols

The IDs, card-holders, and lanyards were issued to all college faculty, staff, and students at the

beginning of the fall semester and to visitors as they enter the campus. They are required to wear them visibly when on campus.

The college instituted a daily student symptom survey that acts as a reminder to students to stay home if they are not feeling well or have other reasons to avoid others. Students must complete and submit online a COVID symptom check prior to each day they attend on-campus classes. This lets the college administration know if any member of the college faculty, staff, or students might be ill or infected with the coronavirus.

Now, should the college be notified that an infected individual has come onto its campus, potentially exposing others, the IT team can see where on campus that individual traveled, and they can notify others with whom they may

have come into contact. The Bay State IT team also monitors and maintains a real-time count of the number of individuals on either campus at any point in time to ensure that the college is following state and local occupancy levels.

Ensuring Data Protection and Privacy

Critically important to the college is maintaining the health, safety, and privacy of its college faculty, staff, and students. To this end, all the data collected by the system remains anonymized and at rest unless IT is required to translate the data for tracing an active infection case. The BLE cards transmit no personally identifiable information – no names, student IDs, etc. – only the MAC addresses and locations throughout the campuses where those BLE

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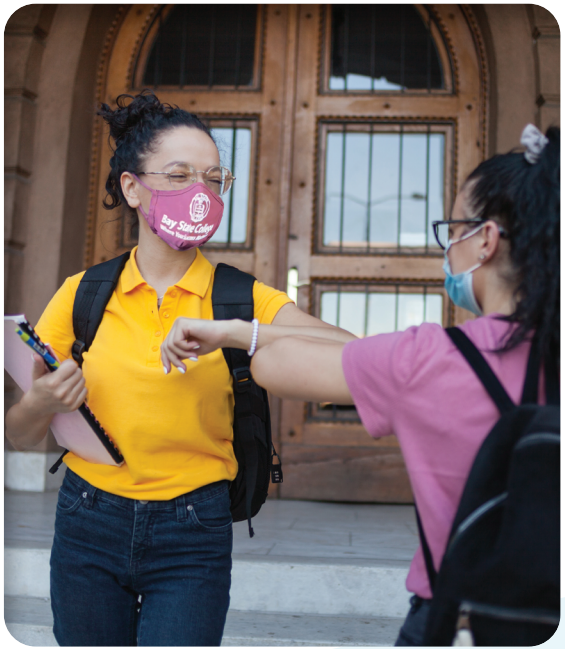
cards have travelled. After 14 days all the collected data is automatically destroyed.

From an IT management perspective, the Meraki MR system provides powerful and intuitive multi-site management via the cloud, eliminating the cost and complexity of traditional on-site wireless controllers and enabling the team to manage both campuses from a single location. In addition, the end-to-end management unifies the college's WAN, LAN, wireless LAN, and mobile device management under a single pane of glass.

In the future, Aspire hopes to leverage Meraki's cloud management capabilities to provide a managed system for this type of contact tracing for other educational institutions and commercial organizations.

"It is our hope that this system, along with all of our other precautions, gives our students, faculty, and staff peace of mind while attending classes and being on campus," says Myers.



ASPIRE TECHNOLOGY PARTNERS
25 James Way, Eatontown, New Jersey 07724
www.AspireTransforms.com
(732) 847-9600

Staging & Logistics:
35 James Way
Eatontown, NJ 07724
(732) 847-9600

Southern New Jersey/ Pennsylvania Office:
1000 Howard Blvd
Suite 210
Mount Laurel, NJ 08054
(856) 380-8110

New York Office:
50 Main Street
Suite 1000
White Plains, NY 10606
(914) 226-3748

Boston Office:
686 Massachusetts Ave.
Cambridge, MA 02139
(617) 651-9020

Upstate New York Office:
Capital South Campus Center
20 Warren Street, Suite 305
Albany, NY 12202
(518) 261-1023

IoT Demonstration Centers:
35 James Way
Eatontown, NJ 12202
(732) 847-9600

20 Warren Street, Suite 305
Albany, NY 12202
(518) 261-1023