

BeachBoard Service Interruption

Overview of Outage

At 7:57PM, August 26 (Sunday), reports were received that the connection to BeachBoard was slow. As Division of IT network and server management team began to look into the issue, the connection to BeachBoard appeared to function normally. However, at 8:00AM the following day (August 27, Monday), the problem returned and quickly deteriorated to a total disconnection. At 8:32AM D2L (BeachBoard's vendor) was contacted. The D2L team began to work with Division of IT and ATS staff to trouble-shoot the problem. Staff worked closely with the vendor throughout the day. Toward the end of the day, the connection to BeachBoard was restored. On the following day (August 28, Tuesday), at 8:06AM, the problem re-occurred and BeachBoard disconnected again. At 8:26AM, the network staff changed the campus firewall configuration and the connection to BeachBoard was restored.

Root Cause

As part of the CSU system network equipment upgrade, we recently replaced our Juniper network firewalls with Palo Alto network firewalls. The new Palo Alto firewalls employ artificial intelligence to use past network traffic patterns as one of its decision factors to accept or reject network traffic. In the summer months, the number of connections to BeachBoard was relatively small. Upon the beginning of the fall semester, the number of connections to BeachBoard increased significantly. The Palo Alto firewalls thought that the increased network traffic to BeachBoard were hacking attacks and therefore blocked the connections to BeachBoard to protect it.

Technical Solution

Disabled the new Palo Alto firewalls' intelligent network traffic control of the network traffic between the campus and the vendor's BeachBoard servers in Ontario, Canada.

Prevention

Division of IT provides the technical infrastructure support for all campus systems. We recognize the importance of online instruction and the reliability of the systems we provide to support the learning management system. In an effort to prevent this type of outage, our team conducted a post-mortem analysis and has instituted the following procedures:

- A more thorough review and examination of our network and server configurations with a focus on objectivity and clear lines of communication with all stakeholders.
- Reduce reliance on the artificial intelligence features for managing our network and server security.
- Any new technology features for equipment that may have a negative impact on our services will be assessed more carefully for potential negative impact on our services.

Student Email Address Change

Beginning on August 2, 2018, students are required to use CSULB assigned email addresses to request and receive official campus communication. Questions from Senate Executive Meeting:

1. Can I continue to communicate with students via their CSULB email addresses after students graduate?

Yes, we keep student email addresses active for 13 months after their graduation. Additionally, we transfer students' contact information to the Office of Alumni Affairs upon students' graduation. The Office of Alumni Affairs assists campus offices and individual faculty and staff members in communicating with our former students.

2. I can see students' CSULB email addresses in PeopleSoft after they are admitted but not enrolled in classes yet. Can I communicate with students via their new CSULB email addresses even though they have not enrolled in any courses yet? How do students know they need to be checking the new CSULB email.

Yes, you may and should use students' CSULB email addresses to communicate with new students even though they have not enrolled in any courses yet. Upon being admitted into our campus, students receive a welcome message from our campus Registrar. The letter advises them to use their newly assigned student email accounts to receive communication from the campus. Additionally, students are advised again at SOAR to check their newly assigned CSULB email accounts for campus communication.

Student Email Issues

Student Emails Sent To Junk Mail

We use Microsoft Office 365 as our email service, which has a built-in anti-spam mail filter. The anti-spam mail filter checks the email sender's originating IP address and its official Internet registry record for inconsistency, among other things, as an indicator for spam mail. Because our BeachBoard servers are on the vendor's site and their IP addresses are not in our campus registered Internet domain, the Microsoft anti-spam filter thinks that someone is faking our campus identity to send email messages. Therefore, Microsoft anti-spam filter sent the email messages from BeachBoard to students' junk mail folders. This issue has been resolved by telling Microsoft anti-spam engine to recognize email messages from BeachBoard servers as legitimate and not to send them to junk mail folders.

Course Email Issues

Overview

As a result of BeachBoard being down, faculty were unable to email their students on the first day of classes. BeachBoard is currently the primary tool that faculty use to communicate with students.

Prevention

Division of IT is exploring creating course email lists on our list servers as a backup email service, so that faculty will have an alternative method of sending email to students.