Internet of Things in the K-12 Ecosystem
by Christy Johnston

When thinking about internet-of-things (IoT) devices, one often imagines the stuff of sci-fi such as driverless cars, camera-mounted drones, and talking teddy bears. However, many connected K-12 schools are finding themselves already in the future by leveraging smart thermometers to regulate the HVAC system, buses that act as mobile hotspots, and wireless probeware suitable for any STEM classroom environment. With these conveniences, it is even more imperative to be mindful of the baseline cybersecurity measures that should be in place to protect organizational data.

A quick win whenever adopting IoT devices is to immediately change all appropriate default passwords for the routers to which these devices may connect. Someone can quickly and easily locate this information online with sites such as RouterPasswords.com.

Another important action is ensuring that all software (either on the device or used to interact with the device) is kept current. Most updates contain some level of protection against recently discovered vulnerabilities.

Being dependent on the manufacturers of IoT devices to ensure they are impenetrable against the latest cyberthreat is not the safest approach to take given their objective is often profit over safety. As such, ensuring that the K-12 infrastructure is providing a protective barrier is critical to any organization leveraging IoT technologies. This includes, but is not limited to, use of firewalls and intrusion detection/prevention systems, implementation of segregated network segments (such as secure and guest), and finally ensuring that physical security is accounted for as well.

Living in the future is exactly what K-12 organizations should be providing to their students. To not do that safely is simply not an option.

Tips

Every month, we will bring you some of the most useful tidbits of information with how-to guides, fliers, and links to some of our favorite cybersecurity resources, which can also be accessed on our website.

- This month's **recommended websites**: Video: Understanding Spectre and Meltdown: All your questions answered and Video: Meltdown and Spectre - Understanding and mitigating the threats
- This month's **flier**: 5 Ways to Protect Your Data

Quick Tip
Keep Your System Up to Date: Whether it is a software update or a system patch, keeping your software and hardware current is the best way to protect against both known and unknown vulnerabilities.

Events

Our mission is to empower all of San Diego County to be cyberaware. Use our online events calendar to find out about awareness events happening each month.

- **March 1**: K-12 Technical, Law, Security, and Ethics Conference
- **March 6**: Happy Half-Hour Discussion with the SDCOE Cybersecurity Team
- **March 8**: SDCOE's CoSN Trusted Learning Environment Cohort Program Kick-Off [Register here.]

Want us to speak in your K-12 classroom? Contact us today!

Security is everyone's responsibility.

SecuringInfo@sdcoe.net | 858-292-3626 | sdcoe.net/cybersecurity
Awareness | Procedures | Training | Vulnerability Assessment

Get up-to-the-minute information about what's happening at SDCOE and in our districts across the county.