

The Alabama Supercomputer Authority Newsletter

K12 CYBER TRAINING AND CYBER/SOC SUPPORT

Alabama Supercomputer Authority recently invited K12 Technology Directors throughout Alabama to attend one of three sessions to learn about the new Security Operations Center (SOC), located in the Huntsville Supercomputer Center, and the cybersecurity services it will be providing to Alabama K12 LEAs this school year. The interactive meetings were held via Zoom on September 1st, September 3rd and September 9th. During these informative sessions, the ASA network staff presented plans for firewall reviews



and hardening, external scanning, and Security Operations Center monitoring. These services will be provided at no charge to LEAs and be a great resource in securing data and detecting

IN THIS ISSUE

CYBER TRAINING AND CYBER/SOC SUPPORT

ARE YOU CIPA COMPLIANT?

HOW ASA'S HIGH PERFORMANCE COMPUTING SYSTEM IS UTILIZED

BACK TO SCHOOL

cyber activity. Each of the sessions lasted approximately one hour and included time for questions. The following topics were covered:

- Cybersecurity awareness training for all K12 employees using 2 highly reputable cyber education resources, KnowBe4 and ThreatAdvice
- Review & hardening of LEA firewall configurations
- External vulnerability scans of LEA's IP addresses, as identified
- Security Operations Center (SOC) to monitor, detect, identify, & notify LEAs of cyber events

Tech Directors will soon be receiving more information via email with the required authorization request forms. These forms must be completed and returned to ASA in order for this work to begin. With the changing environment of remote learning, mobile devices and changing platforms, ASA is pleased to help secure and protect the network vulnerabilities in the schools.

Notes From Nichole

Nichole Gipson Program Administrator, Member Services

ARE YOU CIPA COMPLIANT?

The Children's Internet Protection Act (CIPA) is federal legislation that requires schools and libraries to restrict access to obscene or harmful content on the internet. Review the FCC's requirements below to ensure that you are CIPA compliant.



1. Internet Safety Policy

- Must include a technology protection measure that blocks or filters Internet access to pictures that are:
 - Obscene;
 - Child pornography;
 - Harmful to minors
- Must address all of the following:
 - Access by minors to inappropriate matter on the internet and World Wide Web;
 - Safety and security of minors when using electronic mail, chat rooms, and other forms
 of direct electronic communications;
 - Unauthorized access including "hacking" and other unlawful activities by minors online;
 - Unauthorized disclosure, use, and dissemination of personal information regarding minors;
 - Measures designed to restrict minors' access to materials harmful to minors
- Schools also have two additional requirements:
 - Internet safety policies must include monitoring the online activities of minors;
 - Must provide for educating minors about appropriate online behavior, including interacting with other individuals on social networking websites and in chat rooms, and cyberbullying awareness and response.

2. Technology Protection Measure

• Technology that blocks or filters obscene or inappropriate images from computers with internet access.

3. Public Notice and Hearing or Meeting

• School or library must provide reasonable notice and hold **at least one** public hearing or meeting to address a proposed technology protection measure and internet safety policy.

If you have not submitted your FY2020 CIPA Agreement and Form 479 to ASA, please click the links below for access to the forms and instructions.

CIPA FormCIPA InstructionsForm 479Form 479 Instructions

Completed Forms should be returned to ASA using one of the following methods:

Email: docs@asc.edu Fax: 334-242-0637

Mail: 401 Adams Avenue, Suite 764, Montgomery, AL 36104

Questions - Please call Tyler Carr at 334-242-0100

HOW ALABAMA SUPERCOMPUTER AUTHORITY'S HPC SYSTEM IS UTILIZED

DR. DAVID YOUNG

The Alabama Supercomputer Authority was originally created in 1989 to provide High Performance Computing (HPC) resources to in academic institutions Alabama. High Performance Computing, formerly called Supercomputing, refers to very large computers. ASA's HPC system is named DMC, which stands for Dense Memory Cluster.

HPC systems, and the software that runs on them, are designed to allow a single calculation to use many processors, and a large amount of memory and disk space. This capability is utilized in many areas of science, mathematics, and engineering as well as for medicine, agriculture, business, social science, art, and political science. Here are some examples.



Dense Memory Cluster (DMC) at Alabama Supercomputer's Huntsville Data Center

Teaching: Every semester hundreds of students in Alabama use the ASA HPC system for doing homework assignments. The heaviest usage is from the large universities, but some is from smaller colleges, and occasionally an advanced high school class.

Jobs: There are thousands of people in Alabama who have modeling and simulation as their primary job duty. The availability of a trained workforce helped to bring those well-paid jobs to Alabama.

<u>Research</u>: At the graduate degree level, the ability to do research is a primary job skill. Many academic researchers depend upon the ASA HPC system to do that work and teach those skills. In the spring of 2020, ASA modified the HPC system configuration to make resources available for a Covid-19 research project. This work, led by Dr. Jerome Baudry at UAH, was part of an effort to identify existing drugs to treat Covid-19.

Attracting Faculty: Dr. Okon Akpan received two academic job offers. He took the job in Alabama because of the availability of the ASA HPC system to support his work. Similarly, tours of the Alabama Supercomputer Center, and conversations with the ASA HPC staff have been part of the interview process to attract multiple top-tier university faculty members.

<u>Aiding Small Colleges:</u> In some states, HPC-related courses are only taught at large universities. In Alabama, these courses can be taught at any public educational institution because of the availability of the ASA HPC system.

ASA continues to update the HPC offering to meet the changing needs of Alabama's educational institutions.

Back to School!

"Back to School" has taken on new meaning this year as the Covid-19 pandemic caused the closing of schools back in March. The decision to close schools was made in order to limit exposure to the virus and originally was to last only until Monday, April 6th. As the number of Covid-19 cases in Alabama and around the country increased, it was determined that schools in Alabama would not reopen for the remaining 2019-2020 school year and that learning would take place at home.

Now, as the 2020-2021 school year is kicking off, the Alabama Department of Education has empowered education leaders in each school district to determine their district plan for the new school year. "Roadmap to Reopening Schools" is "the culmination of the ideas, research, experience, and expertise of dozens of educators, healthcare professionals, and logistics specialists". The comprehensive plan focused on three areas in order to assist school systems in determining how to proceed with the school year: Wellness, Operations and Facilities, and Instruction and Technology. While each system individually decided how they would navigate this fall, we can be certain that these decisions were not easily made, and that each system had the well-being of its students, staff, and the families they represent at the forefront of their minds.

The three instructional options offered:

- 1. In person: Traditional, students attend classes on campus.
- 2. **Virtual**: Students attend classes "remotely" using a variety of virtual and paper resources.
- 3. **Blended**: Students transition between traditional and remote and back again based on need/preference.

Learning Type	# of Systems	70 of Tota
In Person & Virtual	61	42.667
In Person, Virtual & Blended	58	40.56%
Virtual	22	15.38%
In Person & Blended	1	0.70%
Blended	1	0.70%
Grand Total	143	100%

Table reflects Alabama K12 Public School Districts reopening plans