

The CTO's Challenge

By Linda Sharp and Jeffrey Hunt

The CTO's challenge is to ensure that computer systems are operational for the school community. The CTO finds a balance between operation and computer security. The systems must be functional when teachers are teaching and when students are ready to use them. A lab of 30 computers costs schools about \$200 for each period they are not functional, based on an annual expenditure of \$8,000 per student and 170 day school year. There is clearly value in that school days are limited. Lost days are lost opportunities.

The CTO's role is technical and functional. The functional areas include appropriate communication to the executive level of the school district to the board of education and community that appropriate policies are in place. These include:

- COPPA – [Children's Online Privacy Protection Act](#)
- CIPA – [Children's Internet Protection Act](#)
- FRCP 34 (archiving) – [Federal Rules of Civil Procedure](#)
- FERPA – [Family Educational Rights and Privacy Act](#)
- NCIPA - Neighborhood Children's Internet Protection Act
- HIPPA - [Health Insurance Privacy And Portability Act](#)
- [Broadband Act](#)
- Other individuals state laws
- Use of personal devices on school networks
- [Appropriate Use policies](#)

These policies must be aligned with other school district policies relating to other school policies related to the student code and personnel code.

On the technical side, CTO's are responsible for:

- Configuration and Testing of all systems, including computers, servers, and networks
- Cloud computing
- Data backup
- Personal devices connecting to the network
- Logging and log analysis
- Antivirus and spyware suppression
- Patching and updates
- Data backups



- Crisis preparation
- Documentation of systems
- Appropriate User Access

When incidents occur, CTOs and their staffs must work in close proximity of school administrations, executive administrations, boards of education, law enforcement, and parents. CTOs acknowledge that principals are responsible for the full operation of their schools and student discipline, yet CTOs have the responsibility for appropriate operation of systems in those schools. CTOs can provide resources to collect appropriate data for principals to use in discipline. When law enforcement is involved, through appropriate process, CTOs can provide information and evidence for the legal process.

Of course, just because an incident involves technology doesn't mean it is only the CTO's role to handle and resolve the issue. All stakeholders interact with technology to some degree (or at very least have students who do), and need to be equipped to handle cyber incidents.