

Network Systems & Design for Transformation and Innovation

Education networks have evolved from addressing school system operational and administrative needs to serving students and teachers in and beyond the classroom, anywhere and anytime. Innovative technologies, more access to the Internet, and powerful communication, creation, and collaboration tools are driving instructional transformation. Rapid change is increasing demand for greater network capacity and reliability. Innovations in data visualization, embedded digital formative assessment, immersive, adaptive digital content, and interoperability place additional demands on school system networks. And all this comes in an uncertain funding environment.

How can school system leaders make high-stakes infrastructure investment decisions when technology, teaching and learning priorities, and funding are changing so rapidly and so constantly? Here are six core characteristics of the “new” network to include in your network design and architecture planning.

The NEW NETWORK DESIGN at a glance

1 • Multiple paths to the Internet

The Internet is a destination for every education stakeholder. The new network will offer higher capacity and reliability through multiple connection points, either through multiple providers or multiple paths from a single provider.

2 • Two or more data centers and/or cloud services

The goal is to increase reliability, ensure disaster recovery, reduce costs, and add agility to ensure future-ready design.

3 • Reduction in single points of failure

School system WAN is designed to deliver increased reliability and to reduce the impact of any outages on students.

4 • Software and services hosted in the cloud

This provides greater Internet bandwidth, gives students reliable anywhere/anytime access, and streamlines access control requirements.

5 • Near-term requirements are met with a clear vision for the future

Your LAN is designed to meet near and mid-term performance demand and a roadmap is established to address long term demand.

6 • Support for students' use of devices

Your network supports not only 1:1 but 1:3-5 student devices and the accompanying high density Wi-Fi demand and delivery, streamlined support, and security for BYOD devices.

As school systems experience growing demand for capacity, reliability, and mobility, the need for the new network is critical. That's where CoSN's *Network Systems & Design* resources are on point and valuable for both your leadership and technology teams. Visit <https://www.cosn.org/edtech-topics/network-design/>