



## **K-20 Education Network Services and Benefits for K-12 Schools**

The K-20 Education Network is the nation's first high-speed, high-capacity, high-reliability network linking colleges, universities, K-12 school districts, and libraries statewide and providing video and data services to education facilities throughout the state. The K-20 Network is specifically designed to meet the broadband needs of Washington state's education community. The K-20 Education Network provides unmatched services and value to its users/customers and is built on a history of success, innovation, and collaboration.

### ***Built for Success***

- Cutting edge, high capacity, advanced fiber optic network designed to meet current and future needs of education
- Proven track record for reliable and innovative networking services
- Engineered as a fully redundant network to minimize outages on the backbone
- Data transfer rates "upstream" and "downstream" are guaranteed

### ***Dedicated Technical Support***

- 7x24 monitoring and technical support for backbone and district edge routers
- Proactive notification and coordination of planned short-term outages for upgrades or maintenance
- Well-established process for problem resolution using 7x24 Network Operations Center (NOC) and Regional Video and Data Institutional Technical Units (RITU)

### ***Protection from Distributed Denial of Service (DDoS) Attacks***

- Proactive monitoring and mitigation to protect districts from Distributed Denial of Service (DDoS) attacks
- Dramatic decrease in endpoint outages and service disruptions due to DDoS attacks since monitoring and mitigation was implemented in fall, 2017

### ***Flexible Video Conferencing Services***

- Zoom desktop and mobile device-based videoconferencing solution is included, which provides interactive video, audio, screen sharing, chat and local recording features, and works on multiple platforms including Windows, Mac, Chrome OS, iOS and Android devices.
- Regional Video and Data Institutional Technical Unit (RITU) support, resources, and expertise is provided at no cost

### ***Essential Protocols and Services***

- IPv4 and IPv6 addressing support is provided at no cost (the K-20 network is fully IPv6 compatible – from the core to the edge)
- DNS Hosting, including use of k12.wa.us domain, is provided at no cost
- Statewide Intranet to support video and business applications (including WSIPC services)



### ***Effective and Efficient Financing***

- OSPI and K-20 address e-rate eligibility issues and apply on behalf of participating school districts
- E-rate discounts are automatically calculated and applied in total fees
- State revolving fund structure enables network maintenance and upgrades without additional cost to school districts

### ***Low Network Fees with No-Cost Growth***

- Lowest possible cost for Internet Service Provider (ISP) services provided through cooperative approach to purchasing and all savings are passed on to users
- Infrastructure and equipment is continuously updated at no additional cost to school districts
- Regular monitoring of district usage to plan proactively for future growth
- No additional fees for bandwidth upgrades

### ***Committed To Educational Excellence and Equity***

- School districts throughout the state have equal access to the “carrier-class” network at the same low cost
- Small, remote school districts do not pay for the higher cost often associated with providing broadband connections at their locations
- Direct access to *Internet2* and other higher education research consortiums, services, and networks - regardless of location

### ***Supporting Teachers, Staff, and Administrators***

- Promotes partnerships with other schools, higher education, and public libraries
- Enables a more efficient use of teacher resources through the use of technology
- Facilitates professional development for educators through videoconferencing
- Saves time and money for regional and statewide meetings

The K-20 Educational Network was established in state law in 1996 and became operational in 1997. The network uses a shared services governance model whereby the users/customers directly balance and determine the network’s service requirements and costs. Although the K-20 network is a publicly supported entity, approximately 75 percent of the services and equipment are outsourced to the private sector. Today, more than 150 higher education institutions and nearly 300 K-12 School Districts and Educational Service Districts are connected to the network. This encompasses approximately 2,000 K-12 schools and 57,000 classrooms. Over 1.5 million students across the state are the primary beneficiaries of the K-20 Network and the services the network provides and supports.