

ATTACHMENT NO. XI-E:	Network Hardware
Recommended Action:	Move to approve the request for Network Hardware with Heartland for \$71,368.75
Recommended Action:	Approve as presented.

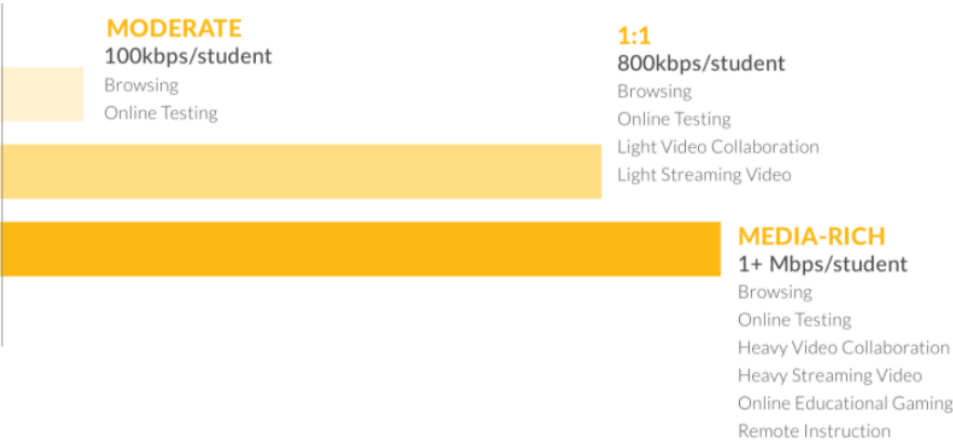
We are requesting approval for network hardware. The purpose would be to upgrade district wide networking equipment (switches).

Benefits to district: Increased uplink speed (in coordination with other projects), standardized uplink media (all fiber, in coordination with other projects), increased POE capabilities (Power over Ethernet.) Will give us the ability to quickly and easily expand port capacity.

Price: \$237,895.84
Our price with E-Rate: \$71,368.75

FCC Guidelines Student Bandwidth Goals
<https://www.educationsuperhighway.org/upgrade/types-of-fiber-services/k-12-bandwidth-goals/>

Based on the FCC goals and common practice in the field, we see the following bandwidth profiles based on technology use.



FCC Bandwidth Goals

BROADBAND ACCESS FOR TEACHING, LEARNING AND SCHOOL OPERATIONS	2014-2015 SCHOOL YEAR TARGET	2020-2021 SCHOOL YEAR TARGET
An external Internet connection to the Internet Service Provider (ISP)	At least 100 kbps per student	At least 1 Mbps per student
Internal Wide Area Network (WAN) connections from the district to each school and among schools within the district	At least 1 Mbps student	At least 10 Mbps per student

Media Rich 1:1 goal 2020-2021. Most educational software is becoming more and more media rich.

1600

Megabyte per second

=

1.6

Gigabyte per second

Formula divide the data transfer rate value by 1000

Based on 1600 students