AKRON PUBLIC SCHOOLS
2017 ERATE CATEGORY TWO Q&A

<u>CACHING</u>

Q1:   What type of content do you want to cache—videos, audios, eBooks, whole web sites, State-mandated testing content, software such as OS/app/etc., and/or other (please identify other for us)?

A1:   All I1 and I2 internet traffic; I1 is public internet and I2 is a specialized segment of internet available for government and research entities

Q2:   What number of titles or hours of video content are to be cached (maximum number)?

A2:   5,000 hours

Q3:   What are your expected concurrent video streams (maximum number)?

A3:   15,000

Q4:   What is the connection between server and switch—1G, 10G Fiber, 10G Copper?

A4:   10G Fiber

Q5:   What are your streaming video protocols (yes/no/not sure)—all, Apple HTTP Live Streaming (HLS), RTMP, Adobe HTTP Dynamic Streaming (HDS), MPEG-DASH, Microsoft Smooth Streaming, RTSP/RTP, MPEG-TS?

A5:   Yes to all

Q6:   Where do teachers or others typically find videos—created locally (lecture capture etc.), OTT (YouTube, Vimeo, Khan Academy, Ted Talks, etc.), Subscriptions (Discovery, etc.) and/or other (please identify other for us)?

A6:   YouTube and Google Drive are the largest sources

Q7:   How many Elementary, Middle and High Schools is your district made up of?

A7:   28 Elementary, 9 Middle, 9 High, 5 Speciality (several sites contain both High and Middle)

Q8:   What is the average internet connection in the Elementary, Middle and High Schools?

A8:   100-Mb at Elementary Schools and 250-Mb at Middle Schools and High Schools

Q9:   Do the schools have their own internet connection or do they link back up to a central hub?

A9:   Central Hub

Q10: Do you have any 1:1 or BYOD schemes in place in your district?
A10: We are going down the path of 1:1

Q11: What is the average number of concurrent users in Elementary, Middle and High Schools?
A11: 100-2,000

Q12: While you are requesting multiple devices, are all of your schools connected through a single Internet site?
A12: Yes

Q13: If so, how large is your current Internet connection?
A13: 1.5-Gb

Q14: If each site is directly connected to the Internet, what is the actual bandwidth at each school?
A14: N/A

Q15: How many users at each school?
A15: The district has between 25,000 and 30,000 total users; average users per site is 515 (some sites much less, some sites much more)

Q16: How many years of maintenance are you looking for- 1yr, 3yrs, 5yrs?
A16: 3 Years

Q17: The RFP specifies two (2) locations (1255 Euclid Ave, Cleveland and 70 N Broadway, Akron).
   a. Can you provide network topology map and a general description on how the network is designed to operate with the two locations.
   b. If they operate as prime/backup – how are balanced (by school? automatic load balanced? what algorithm? other, explain?)
   c. Will one location ever handle the full load of the network? What would the expected load be (sustained usage peak times)?
   d. Are the sites connected via a dedicated link? Size?
   e. Do you know the mix of traffic by protocol and/or application (e.g. HTTP: xx%, HTTPS: xx%, itunes:xx%, YouTube: xx%, etc.), by site or in total?
A17: a-No; b-Balanced by type of school; c-Potentially, no larger than 10 gig; d-No; e-No

Q18: The RFP lists four (4) cache servers: are you considering two (2) devices at each site? Do you need them to back up each other (i.e failover)? Or will they operate in tandem (i.e. load balanced)?
A18: Up to 2 at each site; Tandem

Q19: For each location:
   a. How many internet connections do you have?
   b. If more than one (1) how are they load balanced?
   c. What is your current bandwidth per connection?
   d. What are your peak times?
   e. What is the sustained bandwidth during these time?
   f. Now many concurrent users?
   g. How many 10G network connections do you need per device? fiber or copper?
A19: 1 per site; 1.5-Gb

Q20: Is Akron Public Schools looking for a complete local install service with vendor's technicians on site?
A20: Yes

Q21: The RFP states the need for 4 caching servers each with throughput capability for 5Gbps. How are they to be deployed—a single core cluster 1x4, two clusters at core as active passive 2x2, at separate nodes 2x2, at separate locations 4 x1?
A21: Separate nodes 2x2

Q22: What is the current peak and sustained demand levels (in Gbps) on your internet connection?
A22: 1.5-Gb

ROUTERS

Q1: Are voice or security licenses needed on either of the routers? If so, which model router, which licenses, how many?
A1:   No

Q2: Are performance licenses needed for either of the routers? If so, which model router and how many licenses?
A2:   Not sure

Q3: Are any fiber transceivers needed? If so, multimode or single mode?
A3:   Yes, 1 SM per router

MISCELLANEOUS

Q1: Can a vendor provide a bid for only one Category?
A1:   Yes

Q2: Will a vendor be allowed to bid on only one Category in this RFP or must the vendor put a bid on both Category 1 and 2?
A2:   Bidding on one Category or the other Category or both Categories is allowed

Q3: If a vendor will be allowed to bid on Category 2 only, will a bond be required for this?
A3:   The answer to this question can be found in the RFP