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Michael Wilkes
Director of Technology
Geneva School District 304

To: Dr. Kent Mutchler
From: Michael Wilkes
Date: March 10, 2016
Re: Internet Connection Services

Please submit this recommendation for purchase to the BOE for the March 14, 2016 meeting.

Our current Internet contract expires on June 30, 2016. As we continue our path towards a 1:1 learning environment we understand that reliable and high capacity Internet access is critical for success. To this end, we have included the acquisition of two Internet connections in our 2016-17 Technology Plan. Over the past few years we have realized a shift in the nature and location of student and staff resources. Increasingly this shift is trending towards media-rich, Internet-based resources, while the need for local resources is starting to decline. All indicators seem to reflect that this trend will continue and as such we will need to continue our investment in Internet services.

Over the past several weeks, members of the Technology Department have been involved in evaluating Internet bids that were provided based on our E-Rate 470 request for Internet and transport services. Today, our Internet service consists of a single, 200 Mbps, link via a single provider. Considering the importance of reliable and high speed access, our requirement is to secure two 1000 Mbps Internet connections. We believe these connections will provide the bandwidth capacity we anticipate for our 1:1 learning environment. In addition to this, we will be well positioned with regards to the FCC's recommended bandwidth levels (100 Mbps for every 1,000 users today; 1000 Mbps for every 1,000 users by 2020) for our students and staff (FCC, https://www.fcc.gov/general/summary-e-rate-modernization-order).

Our evaluation criteria weighted price as the highest factor but also included other factors such as diversity of service paths and additional services. As a result of our evaluation we have selected two Internet service providers: ISI Communications, Inc. and Comcast Business. We intend to route student and staff Internet traffic through both connections by routing roughly half of our schools over one connection and the other half over the other. These recommendations were also reviewed and discussed during our February 17th Technology Task Force meeting.

The following table details the associated monthly (MRC) and non-monthly (NRC) recurring charges.

Provider	MRC	NRC	Total Annual Cost (MRC)
ISI Communications, Inc.	$2,100	$6,400	$25,200
Comcast Business	$3,300	$0.00	$39,600
Total (pre-discount)	$5,400	$6,400	$64,800
Less Est. E-Rate Discount	*(2,160)*	*$0.00*	*(25,920)*
Adjusted Total	**$3,240**	**$6,400**	**$38,880**
Today's Connection	$1,480	$0.00	$17,760 (pre-discount) $10,656 (post discount)

Under the new agreements, our pre-discount cost per megabit per month reduces from $7.40 to $2.70.

In addition to the Internet and transport services that Comcast Business provides, Comcast Business offers its customers access to their Threat Management Services (TMS). These services are at an additional cost (outlined below) and allow for the ability to mitigate external attacks on our network. School Districts are

increasingly becoming targets of attacks, such as Denial of Service (DOS), and we are keenly aware of this reality and its impact on neighboring Districts. As of today, Comcast Business is the only provider that responded to our 470 request that offers such services.

Comcast Business TMS Pricing (One-time $1,000 cost payable upon first use of TMS)

Number of Incidents to Mitigate / Duration of Mitigation	Cost
1 Incident / 24 Hour mitigation	$2,000
Up to 3 Incidents / 30 Days	$3,000
Unlimited Incidents / 30 Days	$4,000