

TECHNOLOGY UPDATE

November 19, 2018

Big Spring School Board



AGENDA

- Summer & Fall 2018 Projects Wrap-up
- School Safety - Social Sentinel & Navigate Prepared
- Fiber to Oak Flat and Newville
- Summer 2019 Projects

SUMMER/FALL 2018 PROJECTS WRAP-UP

Raptor Visitor Management is operational at all buildings and logged over 1000 visitors in the month of October

Online Registration System and Back to School Gateway is fully functional

- Starting up using the system for all new registrations to fine tune the process flow and for the registrars to build self-sufficiency
- Stress Test - Early Kindergarten registration in February
- Parents Back to School Gateway open

Go Guardian Teacher Feedback

- Scott Penner: “I think Go Guardian is a wonderful tool for us!”
- Heather Magee: “I love it!!! So helpful!!!”
- Fran Stewart: “I just started using it, and it’s awesome.”
- Denise Sandell: “I love, love having it.”
- Stacey Gibb: “I have used it when I have to cover a class and it has been really effective in making sure everyone is doing what they need to be doing. I really like that I can see what everyone’s screens say, and if they have a tab open that should be closed, I like that I can close it.”

SCHOOL SAFETY APPLICATIONS

OCT 21ST

Cue the mental breakdown



stephyyy @stephyyyy28

Sun Oct 21st @ 11:51pm

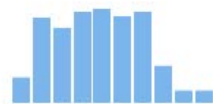
10
alerts generated

0.17 alerts / day
+7 from prior 60 days



24,387
posts associated

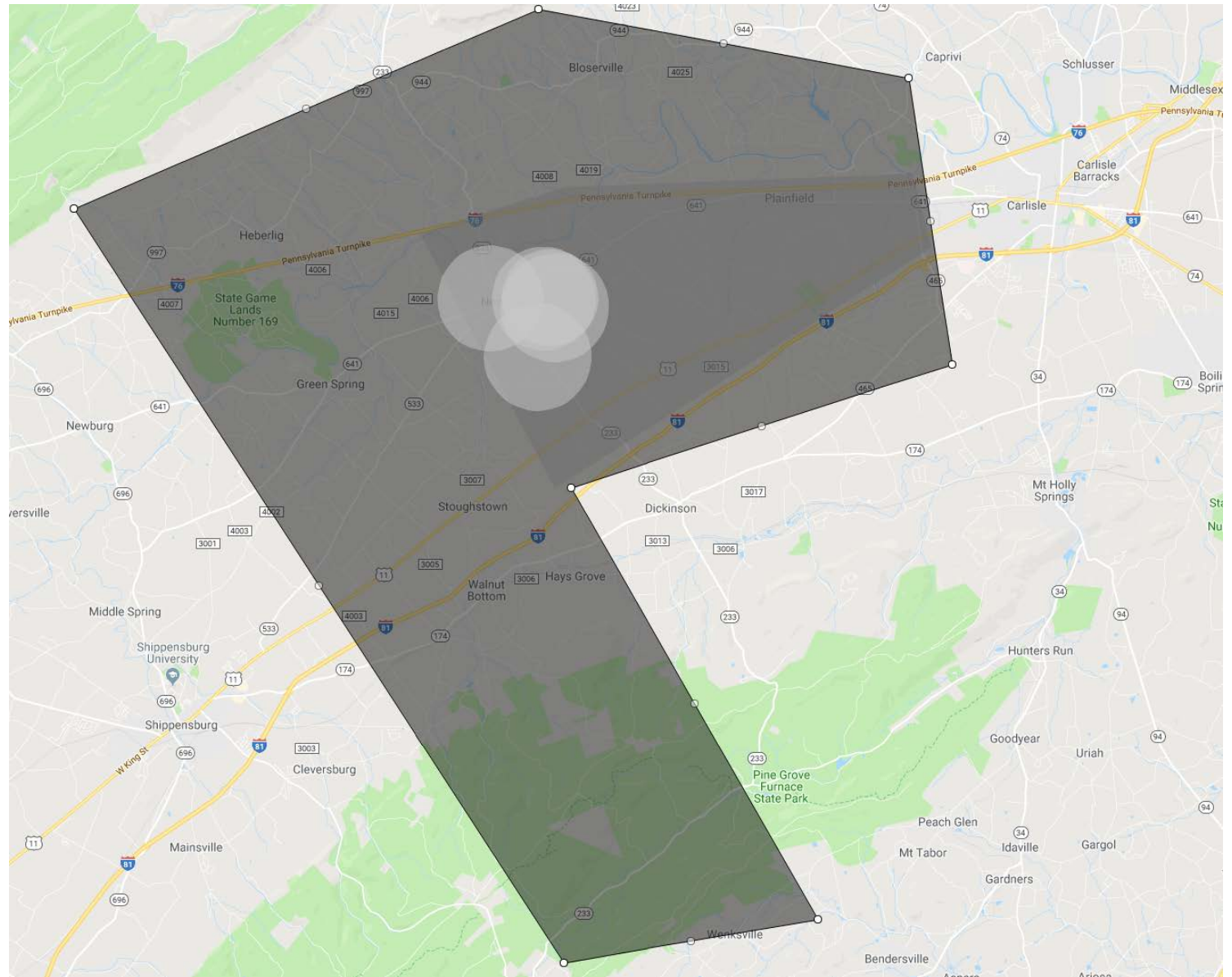
406 posts / day
+612% from prior 60 days



SOCIAL SENTINEL

- Strengthens and enhances our ability to maintain a safe environment for our students and staff
- Access to over 1 billion public social media posts daily
- 10 alerts generated over the past 60 days

SOCIAL SENTINEL GEOFENCE



SOCIAL SENTINEL

SPORTING EVENTS, PROMS, PERFORMANCES

Events+ *Recommended: Enter recurring events, one time events, and update annually.*

Sporting Events

Names for rivalry games, tournaments, homecoming, playoffs, etc.

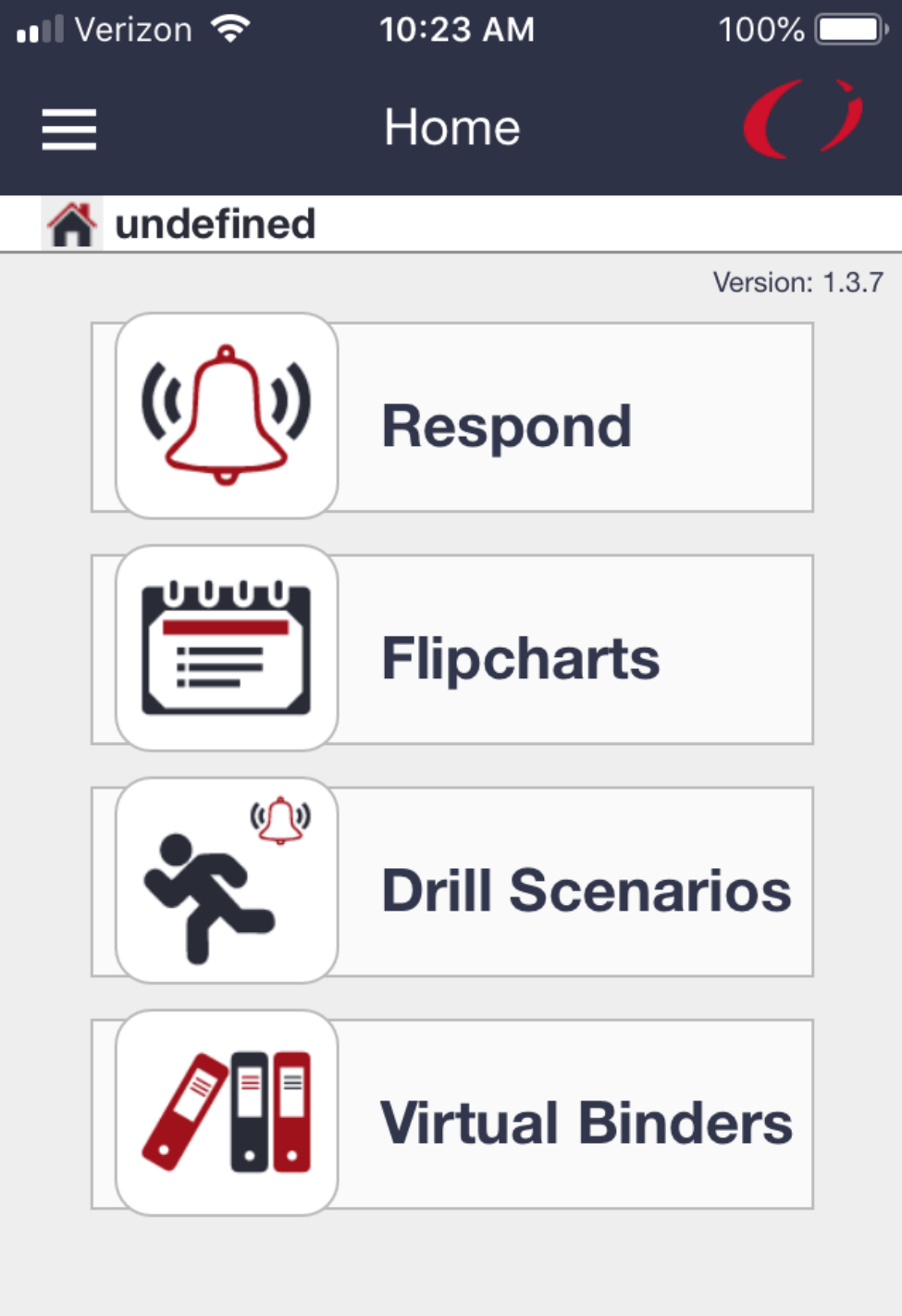
The activation date cannot occur on or before today's date.

Terms (Separate individual words or phrases with a return - Required):

lbj
little brown jug
big spring bulldogs
big spring bulldogs vs shippensburg greyhounds
big spring football
big spring homecoming 2018
big spring paint war 2018
big spring senior night 2018
big spring v shippensburg
bulldogs v. greyhounds

Name (e.g. Staff Targets for All Locations - Required):

Big Spring v. Shippensburg 10/26 II @Big Spring



NAVIGATE PREPARED

- Smartphone App installation and training completed
- Initial fire drills conducted using the app at all buildings
- Each drill raises awareness
 - Staff challenges with the app
 - Alternatives for staff without a smartphone
 - Improve procedures to account for all students and staff

FIBER TO OAK FLAT & NEWVILLE

OAK FLAT NEWVILLE FIBER FEASIBILITY - BACKGROUND

Fiber optic cabling for Newville and Oak Flat Elementary

- High speed, high bandwidth communication backbone for internet and inside the district technology needs
- Current fiber campus includes DO, MS, HS and MR

Newville and Oak Flat currently relies on microwave dish transmissions

- Installed last summer and will be sufficient for several years

Fiber project – beginning to end likely 3 years

Brinjac Engineering study outdated – 6 years ago

CELERITY FIBER FEASIBILITY PROPOSAL

Phase 1 – Feasibility \$5,650

- Deliverables
 - Proposed routes map
 - Clearly defined proposal for Engineering Phase
 - Budgetary Estimate of cost to construct the project

Phase 2 – Full Engineering study \$27,500

- Deliverables
 - Construction plan
 - Make Ready Charges identified
 - Pole leasing costs

CELERITY FIBER
FEASIBILITY
TIMELINE

Feasibility – January/February 2019

Engineering – Spring 2019 (will require board approval)

eRate Category I bid processing October 2019 - February 2020

Waiting for approval/eRate funds - March 2019 - February 2021

Award Bid March 2021

Construction Phase - May 2021 to April 2022

Turn up Fiber Summer 2022 (at this point our microwave technology will be 5 years old but can continue to be the redundant backup link)

SUMMER 2019 TECHNOLOGY PROJECTS

SECURITY CAMERAS/SERVER/STORAGE

WHAT'S INCLUDED?

- Furnish and install 10 outdoor and 20 indoor security cameras each to Oak Flat and Mount Rock
- Furnish and install 10 outdoor and 42 indoor security cameras in the middle school
- Add 90 camera licenses to server software
- Add a server to support the new video streaming and cameras
- Add storage to host the new video – retention is about 2 weeks

BELLS, CLOCKS, PA

WHAT'S INCLUDED?

- Big Spring standard system – CyberData InformaCast
 - Open internet protocol based system
 - Shared back end control system and server
 - Newville installed Summer 2018
 - Full Installations planned Summer 2019 at Mount Rock & Middle School
 - Conversion of speaker only at Oak Flat
 - Look at HS in 2-3 years

COPPER AND FIBER CABLING

WHAT WE ARE DOING?

- Copper and fiber cabling are the highways that carry the data traffic between our classrooms, and the local network closets, server room and the internet
- Most of the copper cable in our buildings is Category 5 which has become obsolete in recent years
 - Copper carries the data traffic from classrooms to the network closets
 - It won't just stop working but it is limited in the speed that it can carry data traffic
 - Cat 6 cabling is made to support more than 10 times the speed of Cat 5
- Fiber cable carries the traffic from local network closets to the server room and the internet
 - Existing fiber at Mount Rock and the middle school will be replaced with newer fiber capable of 10 times the current speed

AUDIO SYSTEMS

WHAT'S INCLUDED?

- Standardized systems for ease of operation and support
 - Middle School
 - Replaces equipment in gym, commons and auditorium
 - Systems can be combined as needed – gym to commons, commons to auditorium
 - Mount Rock
 - Replaces equipment in gym, adds extension to cafeteria commons
 - Stadium
 - Replace equipment in rack and speakers on the press box

SMART INTERACTIVE PANELS

- The same SMART 86” model installed at Newville are on the Summer 2019 project plans for Oak Flat and Mount Rock
 - Equity at all three elementary buildings consistent with 1:1 and other classroom devices
 - At the elementary level, the devices are used as a learning center and less for projection purposes only
 - With the integration of the 6C’s happening at the elementary level first, they are a bit further along with this type of learning
 - Addressing the secondary level in the MS/HS in the coming years gives us the ability to simultaneously address curriculum for best utilization of the devices.

HS TV STUDIO - WHAT IS A TRICASTER?

- Device that merges video from multiple cameras, broadcast graphics, virtual sets, special effects, and audio mixing
- Models available the support social media publishing and web streaming



VIDEO MANAGEMENT SYSTEM

- Use of video in the classroom is on the rise and is expected to increase
 - Not only instructional but video creation by the students
 - Interactive videos will place the student in the middle of the action and allow them to drive and personalize their learning experience
- The benefits of a video management system:
 - Enables Teachers and students to ingest, manage, edit and enrich, publish, search, distribute, and analyze video
 - Creation of personalized video channels
 - Control over security and content
 - Preserve & catalog student created content
 - Manage the delivery of video to the classrooms in an effective manner with minimal network impact

QUESTIONS?

SUMMER 2019 TECH PROJECTS MIDDLE SCHOOL

New bell/intercom system (hardware & reconfig)		\$ 120,000
data cabling: copper, bells-intercom, security cam		\$ 100,000
fiber upgrades		\$ 20,000
servers & storage for security cameras		\$ 75,000
Audio - commons, gym & auditorium		\$ 90,000
security cameras		\$ 107,355

SUMMER 2019 TECH PROJECTS MOUNT ROCK

replace bell/intercom system (hardware & config)	\$ 60,000
data cabling: copper, bell-intercom, security cameras	\$ 75,000
security cameras	\$ 67,684
Server expansion to support video streaming & cameras	\$ 15,000
fiber upgrades	\$ 22,000
interactive smart TV's	\$ 285,000
replace PA system in gym & commons area	\$ 30,000
Stadium audio upgrade	\$ 35,000

SUMMER 2019 TECH PROJECTS OAK FLAT

Oak Flat E.S. - Phase 2	Est	\$	0.50 Million	10/8/2018
IDENTIFIED BASE BID SCOPE ITEMS				BSSD Tasks
security cameras				\$ 67,684
replace bells intercom speakers (config & license)				\$ 30,000
interactive smart TV's				\$ 352,000
copper cabling				\$ 60,000
			SUBTOTAL	\$ 408,000
ESTIMATING CONTINGENCY		5.00%	\$ 20,400	
SUBTOTAL STRUCTURE COST - BASE BID			\$	428,400

SUMMER 2019 TECH PROJECTS HIGH SCHOOL

High School - Phase 2		Est	\$ 0.30 Million	10/8/2018
IDENTIFIED BASE BID SCOPE ITEMS				BSSD Tasks
TV Studio Tricaster Upgrade				\$35,000
			SUBTOTAL	\$ 208,750
ESTIMATING CONTINGENCY	5.00%	\$	10,438	
SUBTOTAL STRUCTURE COST - BASE BID			\$	219,188
CONSTRUCTION RELATED SOFT COSTS - BASE BID				
SUBTOTAL CONSTR. SOFT COSTS		\$	50,459	
SUBTOTAL CONSTR. & CONSTR. SOFT COSTS - BASE BID			\$	259,209
MOVEABLE FIXTURES / EQUIPMENT				
FURNITURE/EQUIPMENT ALLOWANCE*		\$	38,972	
ESTIMATED TOTAL PROJECT COSTS - BASE BID			\$	298,181
				\$35,000