TECHNOLOGY UPDATE

Kern High School District
Board of Trustees
February 5, 2018
INFRASTRUCTURE GOAL

• The overarching goal of our infrastructure project is to create and maintain a robust infrastructure capable of supporting many initiatives. We believe the network should be device agnostic, as well as easy and safe for student and staff use. The network will use state of the art technology that will be scalable and continue to improve functionality for all users.
INTERNET CONNECTION

• Dual 10 Gigabit links to the NOC (Network Operations Center)
• Redundancy through K12HSN and Spectrum
• Implemented New Cloud-Based Content Filter
WIRELESS INTERNET ACCESS

• Expanded Wireless Coverage to Common Areas
• KHSD Devices & BYOD Wireless Networks
  • District Wide Networks that are available at all sites
• Bus WiFi & Kajeet Hotspots
  • Mobile Access for students
WiFi Connections (Snapshot in Time)

- iPad: 7.5%
- BYOD: 41.7%
- KHSD Devices: 50.8%

Total Connections: 4122
Hot Spot Devices and Usage (GB per Month)

- **Kajeets**
  - Devices: 100
  - Usage: 28.05

- **Bus WiFi**
  - Devices: 15
  - Usage: 380
INFRASTRUCTURE

• Upgraded all routers to each site to enable new security features and dynamic VLAN capability
• Consolidated our physical server array into virtual environments
• BHS Fiber Optic Cable Plant
• Implemented a secure VLAN for the video surveillance to isolate all camera feeds from the rest of the network
FUTURE INFRASTRUCTURE PROJECTS

• Staff Email Migration
  • Move email into the cloud

• Fiber Optic Cable Plants
  • Replace 62.5 micron Fiber Optic Cable

• Workstation Replacements
  • Replace obsolete workstations
INSTRUCTIONAL TECHNOLOGY
INCREASING ACCESS

• Increase access to technology for students
• Increase teachers’ ability to infuse and integrate technology
• Increase parents access to schools via technology
INCREASE IN HARDWARE

• Chromebooks
• Document Cameras
• Virtual Reality Viewers
• Surface Pro Tablets
Chromebooks

Chromebook Count

Number of Chromebooks

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Chromebooks</th>
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<tbody>
<tr>
<td>2015/16</td>
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<tr>
<td>2016/17</td>
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<tr>
<td>2017/18</td>
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School Year
DOCUMENT CAMERAS

Doc Cam Count

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<th>Number of Doc Cams</th>
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<table>
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<tr>
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The number of document cameras has increased from 500 in 2015/16 to 1000 in 2017/18.
VIRTUAL REALITY (VR) VIEWERS

VR Viewer Count

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<thead>
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TEACHER ACCESS AND SUPPORT

• Variety of software and applications utilized for organization, content delivery and assessment
• Google Apps for Education Summits (GAFE)
• Tech Professional Development opportunities
  • local, state, and national
GAFE SUMMIT

- Ridgeview HS (2015) – 413 teachers
- Liberty HS (2016) – 504 teachers
- West HS (2017) – 397 teachers
- July 2018
TECHNOLOGY PROFESSIONAL DEVELOPMENT AND SUPPORT

- GAFE
  - Google Classroom
- Apex
- Illuminate
- Synergy
- Pear Deck – 500+ teachers
During School & Afterschool Sessions
(40+ Sessions so far this year)

Trainer of Trainers
(Minimum of 2 per comprehensive site for software, such as Illuminate)

Instructional Tech Site Visits
(10+ site visits so far this year)

Summer tech training sessions are also offered for new teachers before the start of the school year. Summer 2017, 130+ training spots were filled for Illuminate and Synergy sessions.
- Google Cardboard
- Augmented Reality
- Online Simulation Labs
- Google Classroom

Red Rock Canyon 360
ThingLink Carlsbad Cavern 360 Annotated