Statewide School Inventory and Engineering Study

Utah Education and Telehealth Network

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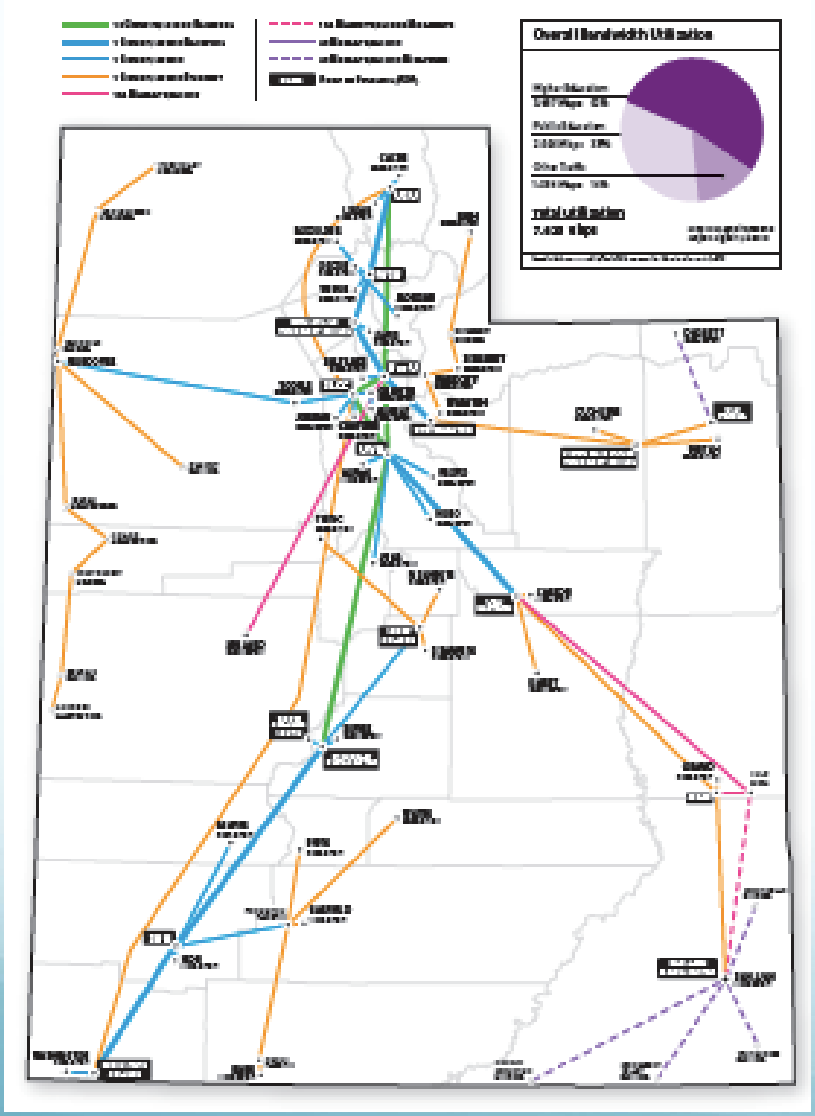
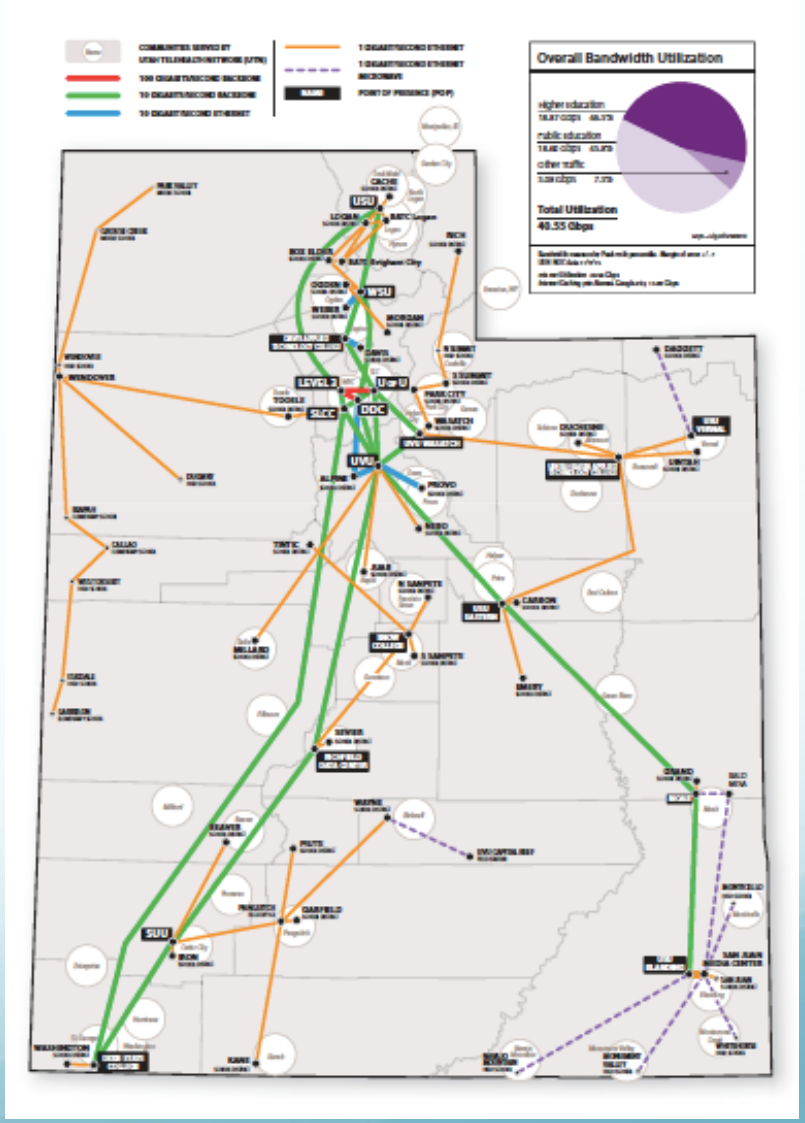
UETN Infrastructure Map

Dec. 2012



Dec. 2015



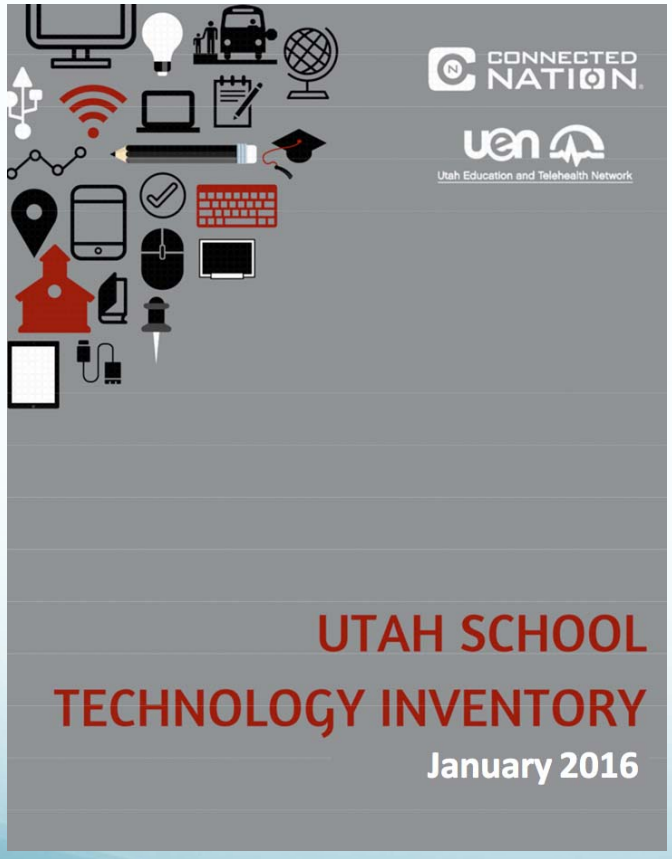
SB 222 Digital Teaching and Learning Program

- USBE
  - develop a master plan for a statewide digital teaching and learning program (DT&L)

- UETN
  - conduct an inventory of the public education system's current technology resources;
  - Perform an engineering study to determine the technology infrastructure needs of the public education system to implement a DT&L program
  - As funding allows, provide infrastructure and technology support for districts and charter schools
    - Inventory of Educational Technology Professional Development

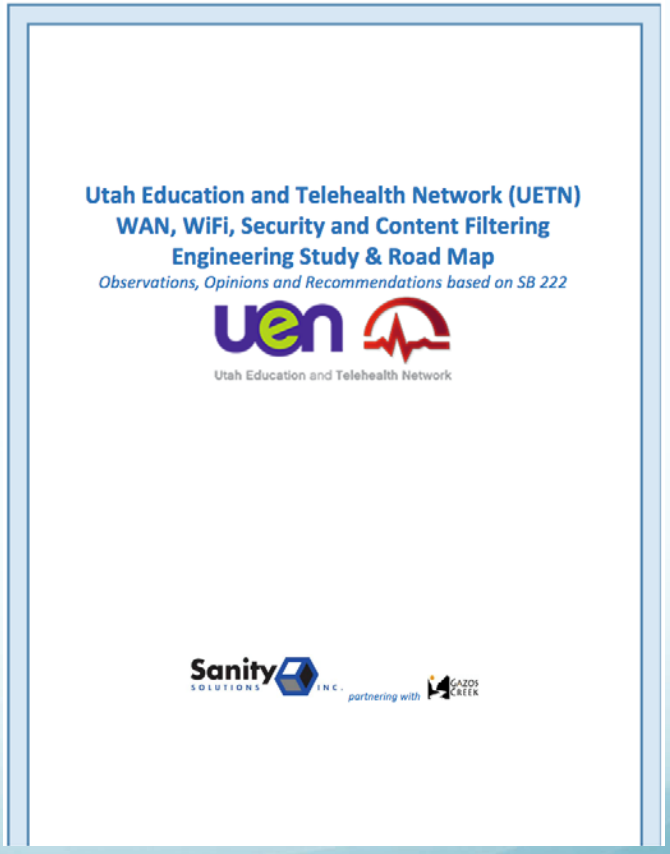
Inventory

Connected Nation



Engineering

Sanity Solutions



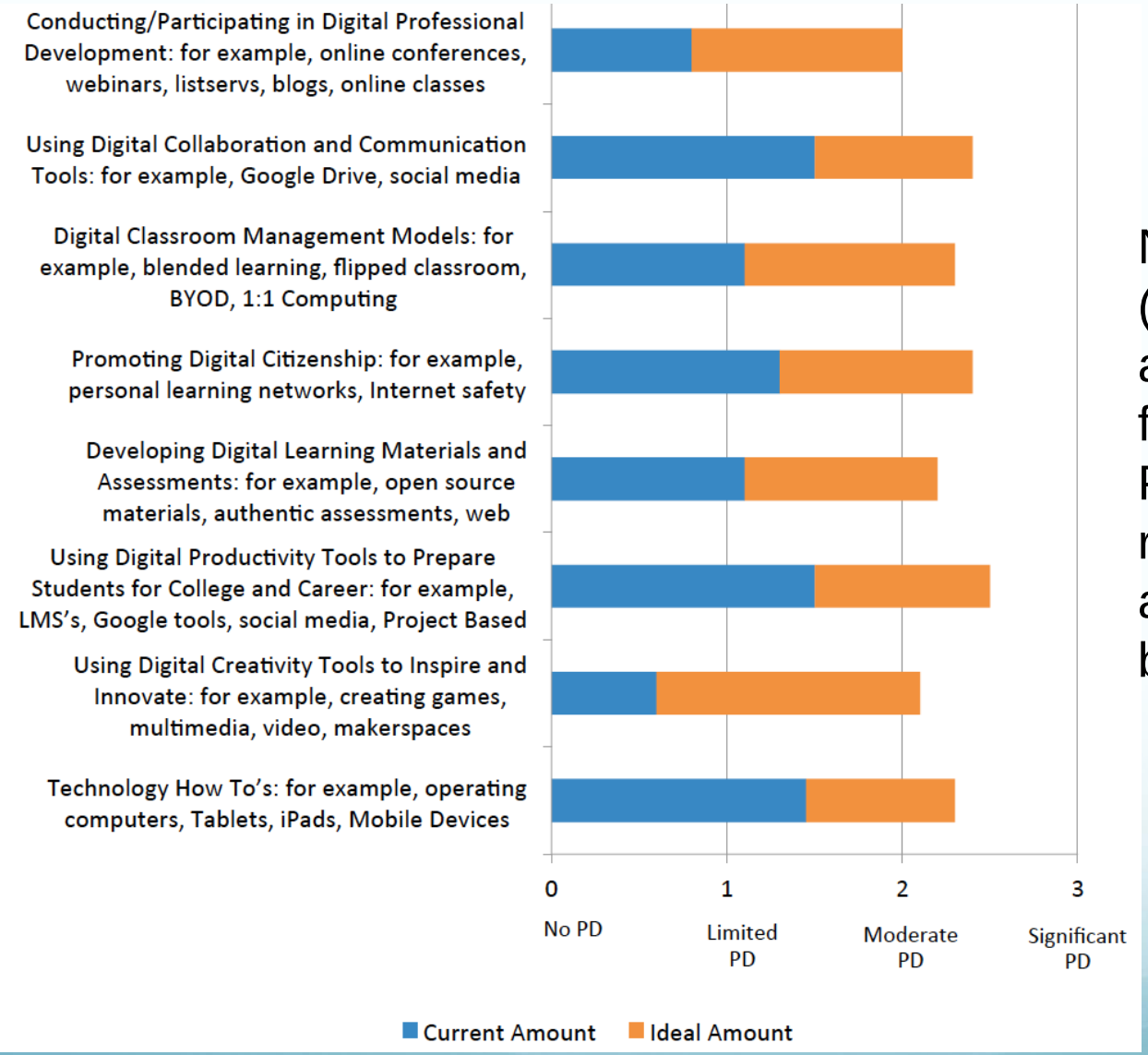
http://www.uen.org/digital-learning/

Educational Technology Professional Development

Dr. James Marshall, San Diego State University

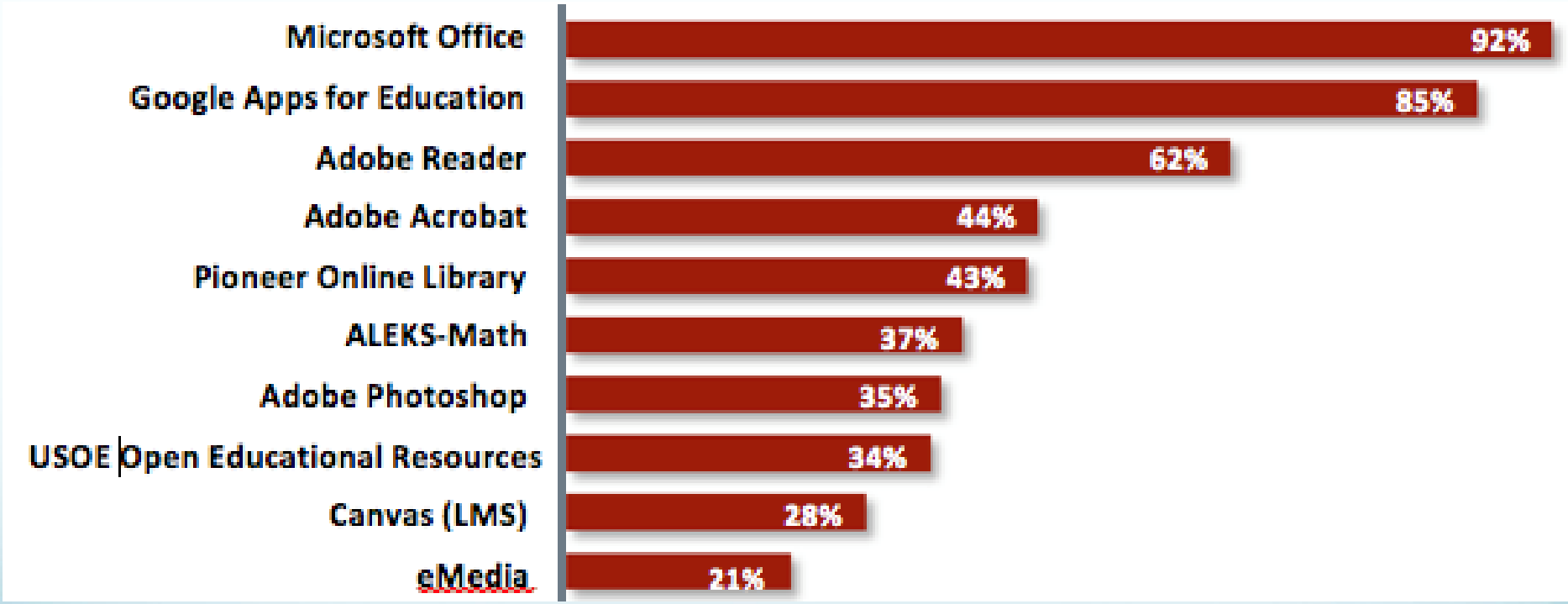
- Eight areas of focus
  - Current Research
  - ISTE Standards (International Society for Technology in Education)

Professional Development

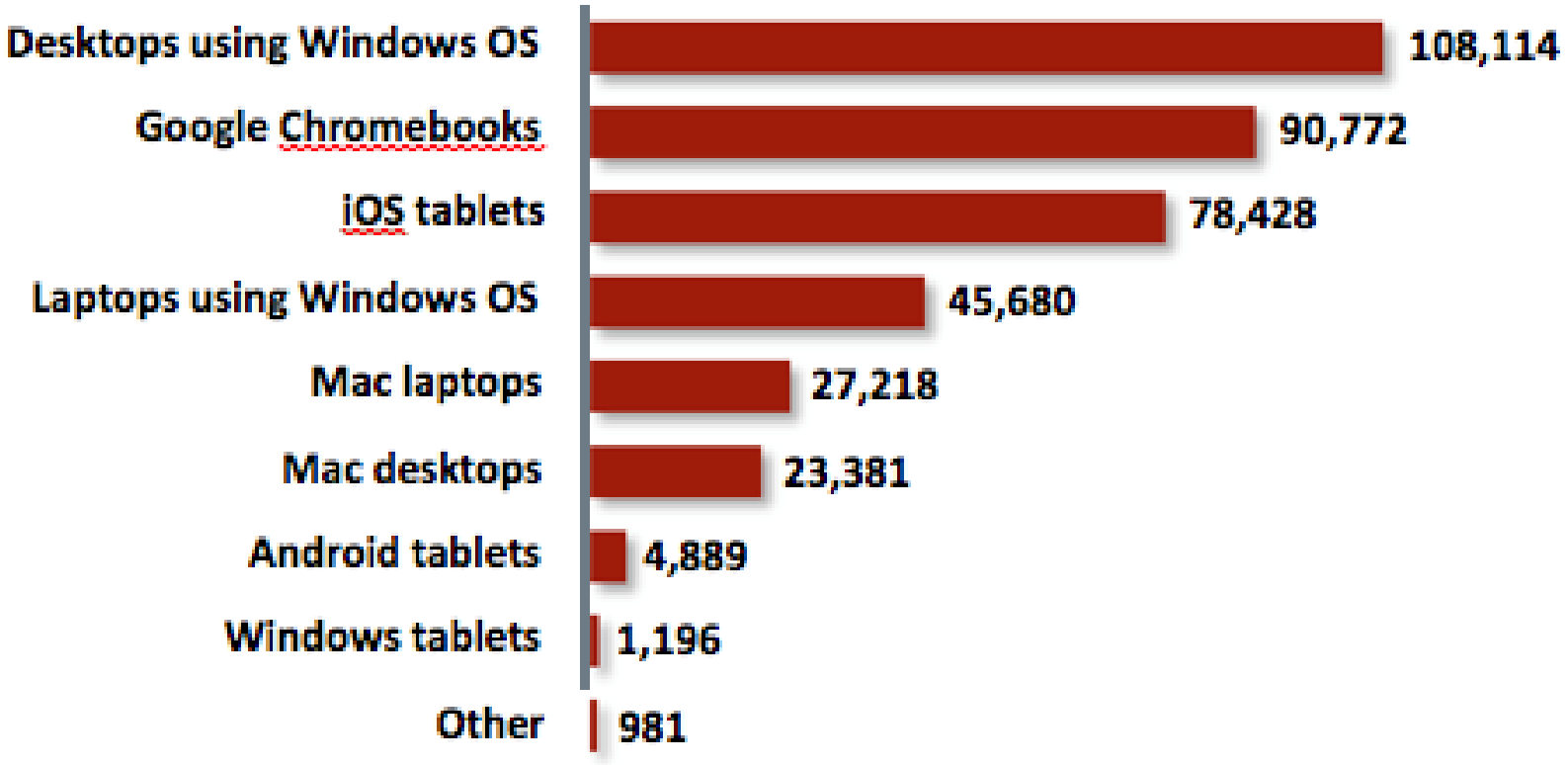


Nearly one-half (47%) of districts and charter schools feel that adequate PD and training resources are not available in their budgets

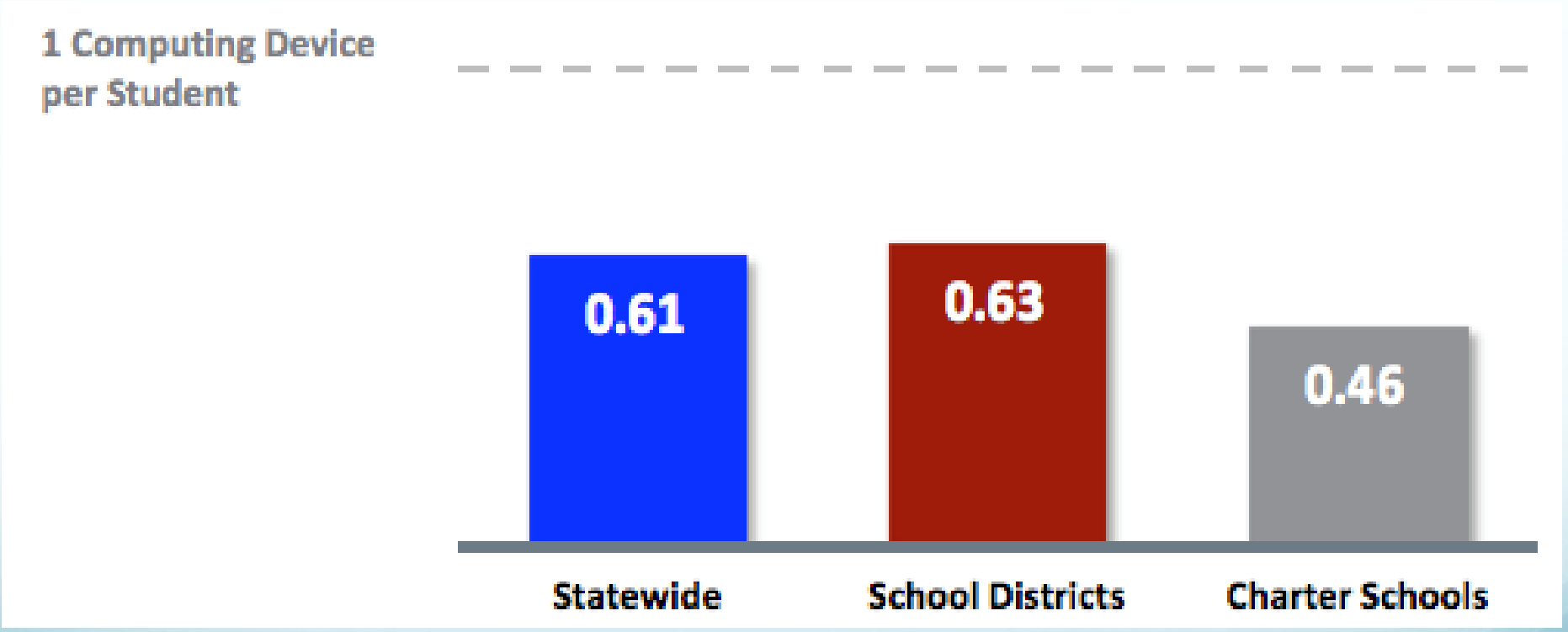
Statewide Use of Each Application



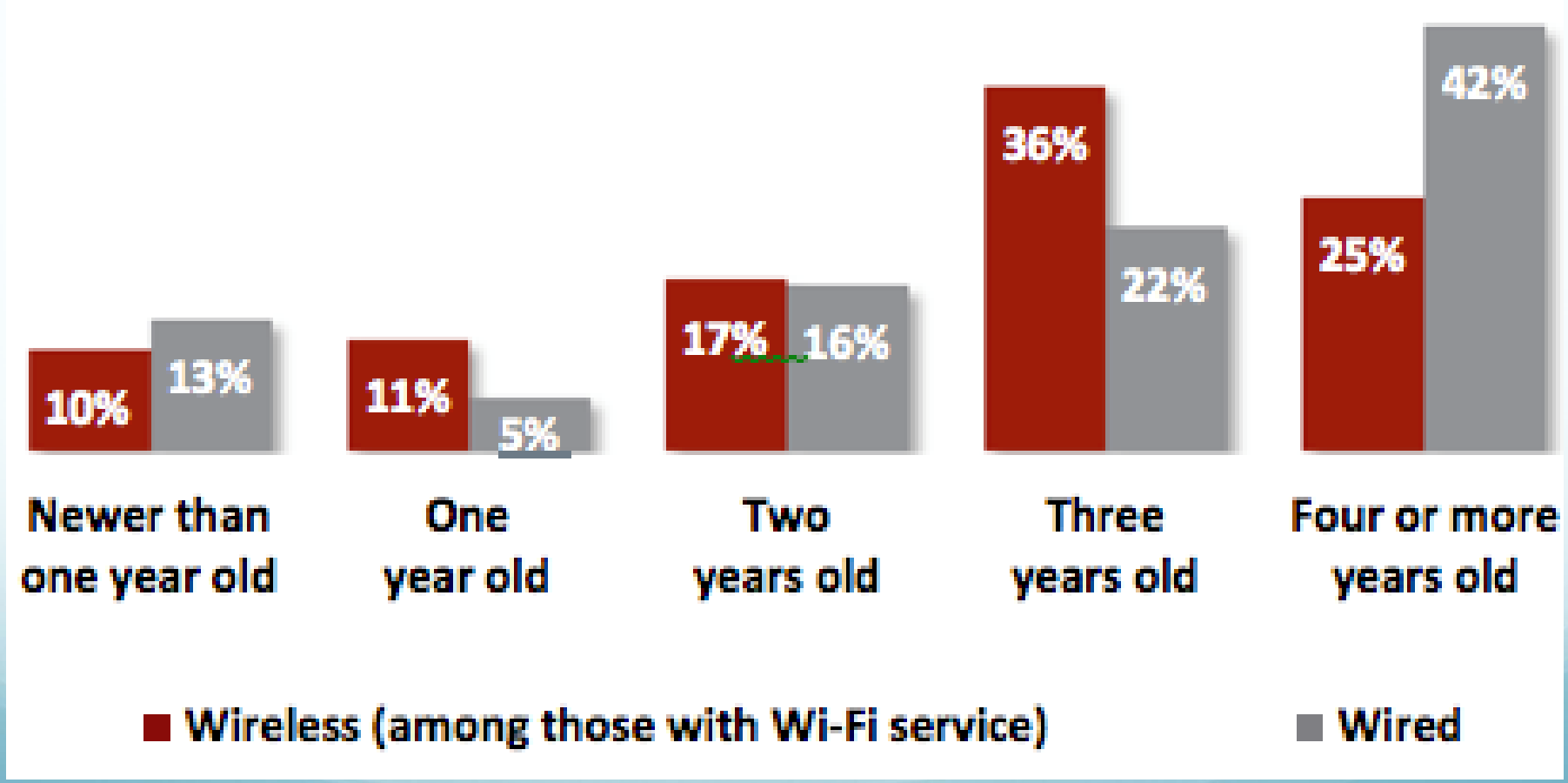
Computing Devices Available for Student Use in Utah Schools – 380,600+



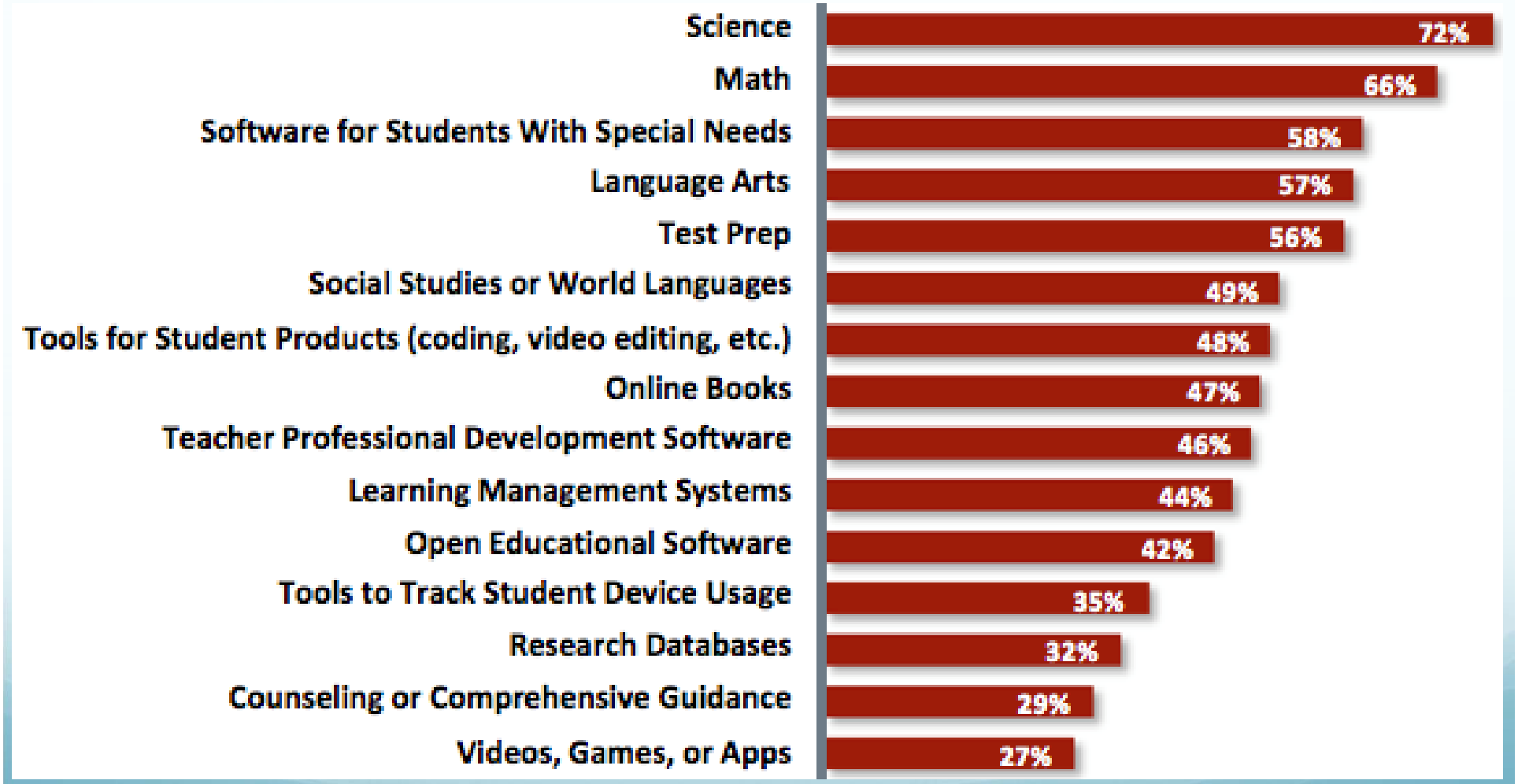
Computing Devices per Student in Utah Schools



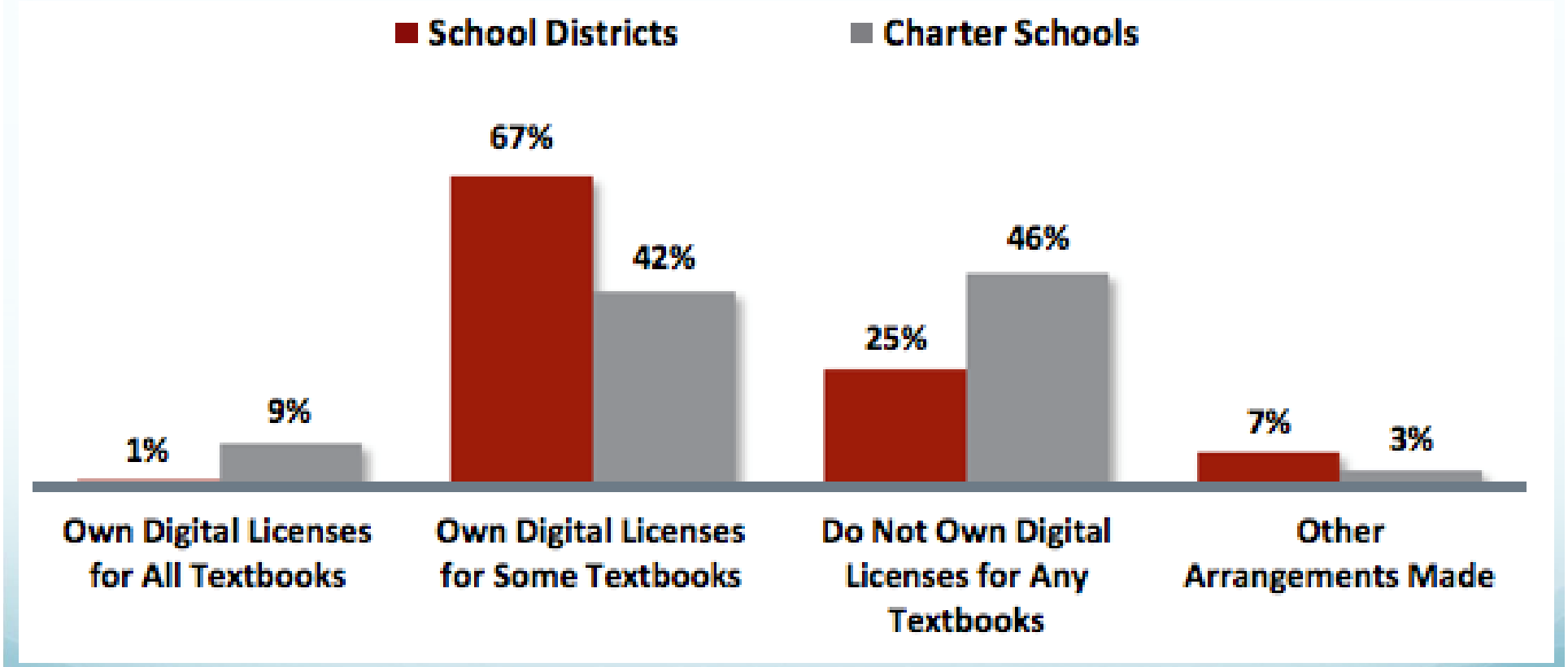
Average Age of Hardware in Utah Schools



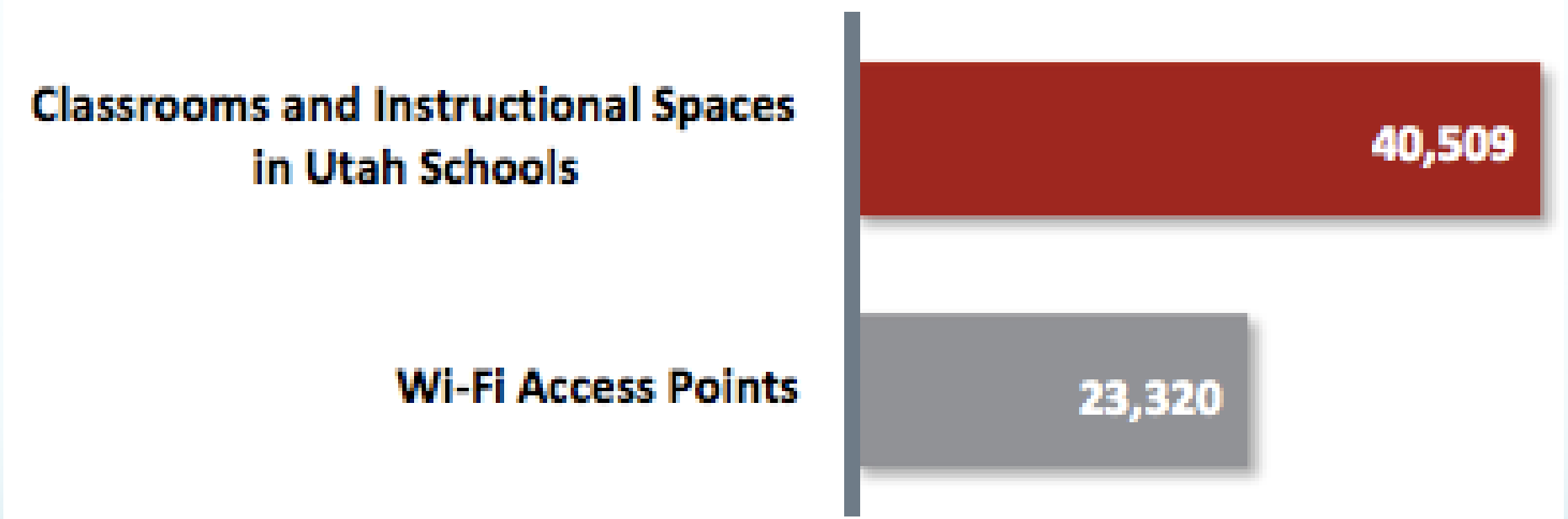
Tools and Software Needs Reported by Utah Schools



Digital Content License Agreements in Utah Schools



Wi-Fi Access Points vs. # of Classrooms or Instructional Spaces



.58 APs per classroom or instructional space

More than 17,000 Instructional spaces without APs

Engineering Study

- Wide Area Network (WAN)
- Wireless (Wi-Fi)
- Security & Content Filtering

Wide Area Network (WAN)

- Continue year over year bandwidth increase.
- Monitor and prepare for large-scale wireless implementations across LEAs
- Seek Stable Sustainable Operational Funding Sources
- Standardize Software and Hardware for Procurement Economies of Scale

WiFi

- Establish baseline of 20 Mbps per student
- Define and meet cabling requirements for digital learning
- Establish supported vendor list
- Add wireless support staff and tools for rapid response and resolution to issues
- Add or outsource high level wireless architect
- Set state standards for WiFi policies and practices

Security and Content Filtering

- Add additional security experts
- Limit BYOD
- Establish Security Event and Incident Management Practice
- Continue development of Vulnerability Management Practice to support LEAs
- Set state standards for security policies and practices
- Address and Support statewide Content Filtering Needs

Key Results and Findings

- 0.61 devices per student
- 11% of schools deploy 1:1
- Only 5% of schools deploy 1:1 and allow students to take the devices home
- Wi-Fi infrastructure is lacking
- Adequate Professional Development not available
- Wired and wireless infrastructure is aging

“Once we go all in with Digital Teaching and Learning, the network becomes a utility; something as critical as water and power in a school.”

Sanity Solutions

Questions?

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