



Technology Needs Assessment

Staying Relevant and Reliable





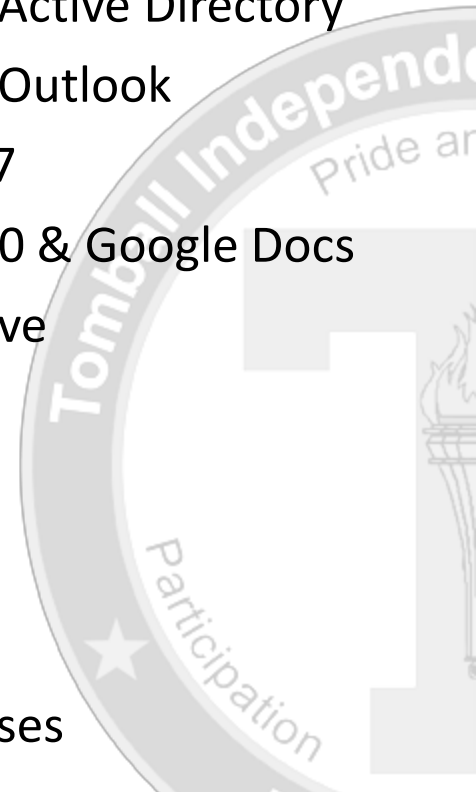
Technology Additions/Changes

System/Equipment	2005	2012
Wireless Network	None	Aruba Wireless Network
Ceiling Mounted Projectors	None	Every Core Classroom
SMART Boards, Airliners	None	Every Core Classroom
Document Cameras/Webcams	None	Every Core Classroom
Handheld Devices	None	iPads, iPods, Nooks
Student Laptops	None	53 Laptop Carts
Server Virtualization	None	VMware
On-line Parent Registration	None	Tomball ISD LINK
Curriculum Management	None	Eduphoria Forethought
CBA/STAAR Analysis Tool	None	Eduphoria Aware



Technology Additions/Changes

System/Equipment	2005	2012
Student-Computer Ratio	12 - 1	3 - 1
Internet Bandwidth	7 Mb	200 Mb
Directory Structure	e-Directory	Microsoft Active Directory
E-mail System	GroupWise	Microsoft Outlook
Windows OS	Windows XP	Windows 7
Desktop Productivity	Office 2003	Office 2010 & Google Docs
Network Switches	Cisco	HP ProCurve
Anti-Virus	McAfee	Sophos
Content Filter	Surf Control	Fortinet
Network Firewall	Cisco	Fortinet
Storage Area Network	3.7 Tb	26.8 Tb
Gigabit Connections	8 Campuses	All Campuses





Technology Additions/Changes

System/Equipment	2005	2012
Student Accounting	OpenSeries	e-SchoolPLUS
Finance Accounting	OpenSeries	e-FinancePLUS
Automated Library System	Athena	Alexandria
Child Nutrition System	PCS	Cybersoft
Gradebook System	Pinnacle	Teacher Access Center
Special Services System	Encore	e-SPED
Parent Online Grades	PIV	Home Access Center
Textbook Inventory	TIPWin	TIPWeb





Instructional Computers

Increased access to instructional equipment.

- One Computer Lab and Three Laptop Carts at each elementary campus.
 - Exception: LES has Four Laptop Carts.
 - Exception: CFES has Six Laptop Carts.
 - Exception: TCES has Two Laptop Carts.
- Two Computer Labs and Three Laptop Carts at each intermediate campus.
- Four Computer Labs and Four Laptop Carts at every junior high campus.
- Thirteen Computer Labs and Six Laptop Carts at Tomball High School.
- Nine Computer Labs and Six Laptop Carts at Tomball Memorial High School.
- TES, RES, and DPES used ARRA funds to purchase additional laptops.
- CFES used PTO donations to purchase additional laptop carts.



Technology Needs

The Gartner Group places industry standard technology equipment into two categories, called “Useful Life”:

- **Primary Useful Life** - The period that the equipment can be used in the technically most efficient manner by a leading edge or near leading edge IT organization. The equipment will be fully compatible with leading edge applications and hardware.
- **Secondary Useful Life** - The equipment continues to be able to function properly for most tasks but not all leading edge tasks; however, the cost of operation especially in the area of maintenance may force replacement by leading edge organizations.

Sample Useful Life Cycles:

Class of Equipment	Primary Useful Life	Secondary Useful Life	Total
Desktops	48 months	12 additional months	5 years
Laptops	36 months	12 additional months	4 years
Servers	36 months	24 additional months	5 years
Attached Storage	36 Months	12 additional months	4 years



Why Replace/Increase Technology?

Reasons to consider replacing/increasing technology are:

- Equipment becomes obsolete and finding parts become difficult
- Equipment is not compatible with new software
- Maintenance costs become excessive
- Equipment no longer works
- Keep up with technological advances
- To improve user productivity/reduce frustrations
- Support growing student population





What Will Need to be Upgraded?

Network Infrastructure:

Equipment	Qty.	Cycle	Purchased
Storage Area Network (SAN)	2	5 Year	(05/03/11 & 11/10/11)
Core Network Switch	1	8 Year	(01/07/09)
Core Servers	6	6 Year	(07/11/08 & 03/03/11)
Wireless Network	600+	8 Year	(08/21/08)
Fiber Channel Switches	2	6 Year	(06/29/09)
Content Filter/VPN	2	5 Year	(03/23/12)

System Software:

Software	Qty.	Cycle	Purchased
Microsoft Windows	5,000+	7 Year	(05/31/12)
Microsoft Office	5,000+	7 Year	(08/21/12)
Active Directory/Exchange	13,500+	7 Year	(01/13/10)



What Will Need to be Upgraded?

Instructional Equipment :

Equipment	Qty.	Cycle	Purchased
Desktops	4,000	8 Year	(Inventory)
Laptops	1,890	5 Year	(Inventory)
Projectors	700+	3 Year	(07/11/08 & 03/03/11)
SMART Boards	547	8 Year	(06/15/07, 05/07/10, 04/29/11, 05/25/12)

New Projects:

- Disaster Recovery – (Offsite Server & SAN Location for DR)
- Additional Network Switches – (Support Growing Portable Devices)
- Additional Access Points – (Support Growing Portable Devices)
- Additional SmartBoards – (Non-Core Content Classrooms)

Instructional Projects:

- Pilot Project Equipment Replacements – (General Funds)
 - iPads, iPods, Nookss



2013 - 2014 Technology Needs

No additional technology purchases will be made during the 2013 - 2014 school year unless an emergency in order to focus on training teachers to use all of the technology equipment purchased in the previous bond in order to ensure ease of use in the classroom of all new technology.





2014 - 2015 Technology Needs

The following items will need to be purchased:

	Requested	Desired	Envisioned
• 757 - Desktops	\$300,000.00	\$300,000.00	\$300,000.00
• 689 - Laptops	\$00.00	\$360,000.00	\$360,000.00
• 100 - Projectors	\$00.00	\$00.00	\$60,000.00
• 3 - Core Servers	\$00.00	\$50,000.00	\$50,000.00
• Disaster Recovery	\$00.00	\$150,000.00	\$150,000.00
• 150 - SmartBoards	\$800,000.00	\$800,000.00	\$800,000.00
2014 - 2015 Total:	\$1,100,000.00	\$1,660,000.00	\$1,720,000.00



2015 - 2016 Technology Needs

The following items will need to be purchased:

	Requested	Desired	Envisioned
• 474 - Desktops	\$170,000.00	\$170,000.00	\$170,000.00
• 200 - Laptops	\$00.00	\$100,000.00	\$100,000.00
• 100 - Projectors	\$00.00	\$00.00	\$60,000.00
• 3 - Storage Networks	\$00.00	\$00.00	\$300,000.00
• 2 - Fiber Switches	\$00.00	\$00.00	\$80,000.00
• 3 - Core Servers	\$00.00	\$00.00	\$50,000.00
• Wireless Network	\$1,000,000.00	\$1,000,000.00	\$1,000,000.00
• Network Switches	\$300,000.00	\$300,000.00	\$300,000.00
• Enhanced Technology	\$300,000.00	\$300,000.00	\$300,000.00
2015 - 2016 Total:	\$1,770,000.00	\$1,870,000.00	\$2,360,000.00



2016 - 2017 Technology Needs

The following items will need to be purchased:

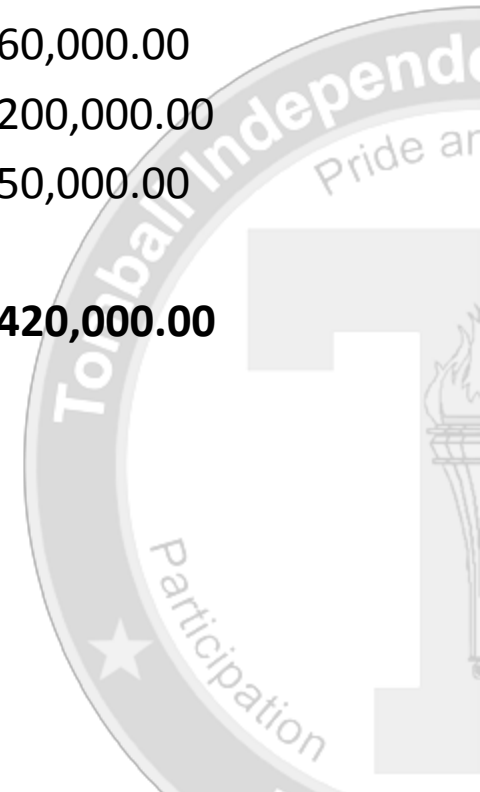
	Requested	Desired	Envisioned
• 380 - Desktops	\$150,000.00	\$150,000.00	\$150,000.00
• 694 - Laptops	\$00.00	\$350,000.00	\$350,000.00
• 100 - Projectors	\$00.00	\$00.00	\$60,000.00
• 30 - SmartBoards	\$50,000.00	\$50,000.00	\$50,000.00
• 1 - Core Switch	\$00.00	\$80,000.00	\$80,000.00
• 2 - Content Filter	\$00.00	\$00.00	\$80,000.00
• 3 - Core Servers	\$00.00	\$00.00	\$50,000.00
• 2 - Storage Networks	\$00.00	\$00.00	\$200,000.00
• Active Directory	\$00.00	\$00.00	\$30,000.00
2016 - 2017 Total:	\$200,000.00	\$630,000.00	\$1,050,000.00



2017 - 2018 Technology Needs

The following items will need to be purchased:

	Requested	Desired	Envisioned
• 70 - Desktops	\$30,000.00	\$30,000.00	\$30,000.00
• 150 - Laptops	\$00.00	\$80,000.00	\$80,000.00
• 100 - Projectors	\$00.00	\$00.00	\$60,000.00
• 120 - Smart Boards	\$200,000.00	\$200,000.00	\$200,000.00
• 3 - Core Servers	\$00.00	\$00.00	\$50,000.00
2017 - 2018 Total:	\$230,000.00	\$310,000.00	\$420,000.00





2018 - 2019 Technology Needs

The following items will need to be purchased:

	Requested	Desired	Envisioned
• 370 - Desktops	\$150,000.00	\$150,000.00	\$150,000.00
• 130 - Laptops	\$00.00	\$70,000.00	\$70,000.00
• 100 - Projectors	\$00.00	\$00.00	\$60,000.00
• 150 - Smart Boards	\$250,000.00	\$250,000.00	\$250,000.00
• 5000 - Windows	\$200,000.00	\$200,000.00	\$200,000.00
• 5000 - Office	\$200,000.00	\$200,000.00	\$200,000.00
2018 - 2019 Total:	\$800,000.00	\$870,000.00	\$930,000.00



5-Year Technology Needs

The following totals represent the needs of Tomball ISD:

	Requested	Desired	Envisioned
• 2,050 - Desktops	\$800,000.00	\$800,000.00	\$800,000.00
• 1,863 - Laptops	\$00.00	\$960,000.00	\$960,000.00
• 500 - Projectors	\$00.00	\$00.00	\$300,000.00
• 450 - SmartBoards	\$1,300,000.00	\$1,300,000.00	\$1,300,000.00
• Disaster Recovery	\$00.00	\$150,000.00	\$150,000.00
• 1 - Core Switch	\$00.00	\$80,000.00	\$80,000.00
• 2 - Content Filter	\$00.00	\$00.00	\$80,000.00
• 12 - Core Servers	\$00.00	\$00.00	\$200,000.00
• 2 - Fiber Switches	\$00.00	\$00.00	\$80,000.00
• 2 - Storage Networks	\$00.00	\$00.00	\$500,000.00
• Wireless Network	\$1,000,000.00	\$1,000,000.00	\$1,000,000.00
• Network Switches	\$300,000.00	\$300,000.00	\$300,000.00
• Enhanced Technology	\$300,000.00	\$300,000.00	\$300,000.00
• 5000 - Windows	\$200,000.00	\$200,000.00	\$200,000.00
• 5000 - Office	\$200,000.00	\$200,000.00	\$200,000.00
• Active Directory	\$00.00	\$00.00	\$30,000.00
5 - Year Total:	\$4,100,000.00	\$5,290,000.00	\$6,480,000.00