

Arizona Department of Education

Career and Technical Education

Recommended Equipment List

Program: **NETWORK SECURITY**

CIP#: **11.1999.00**

NOTE: The following items and descriptions are the recommended equipment guidelines for each CTE **Network Security** program. Please note that this list of recommended items does not necessarily need to be supported financially by Federal Perkins or State Priority funding sources. In many cases, local school district funds are used to purchase items on a regular basis (i.e. furniture, consumables, etc.) Further, please understand that this is not an exhaustive list. Local program and business needs may necessitate the purchase of additional equipment and software resources, as may the rapidly-changing nature of the industry-specific technologies used in the program.

Please contact ADE-CTE for **Engineering and Information Technologies, Manufacturing** if you have questions regarding the appropriateness of any item you are considering for addition to your CTE **Network Security** program.

Recommended Equipment and Software

Item	Notes
Cable Cutter, Coax	
Crimp Tool W/ Stripper, RJ11, RJ45	
File, Flat Needle	
Flashlight, Tactical L.E.D.	
Forceps, Straight w/Grip	
Handle, For Blades, Drive-Loc	
Hex Keys Set, Fold-Up .050" to 3/16"	
Insertion/Extraction Tool	
Nutdriver Blade, 3/16" 1/4, 5/16, 3/8	
Pliers, Diagonal 4" W/Spring	
Pliers, Long Nose 4 3/4", 6" w cutter	
Pliers, Slip Joint 6"	
Pliers, Vise-Grip Long Nose 6"	
Punchdown Tool W/110 Blade	
Receptacle Analyzer	
Screwdriver, Phillips #0 x 2", 1x3, 2x4	
Screwdriver, Slot 1/4" x 6"	
Screwdriver, Slot 3/16" x 4"	
Screwdriver, Slot 3/32" x 2"	
Screwdriver, Stubby 2 in 1	
Soldering Iron, 25 Watt 3-wire	
Telephone Line Tester	
Tone Line Aid W/Volume Control (Multimeters)	
Tone Tracer, High Powered (Circuite Testers)	
Trimpot Tool	
Wire Strippers, "T" 16-26 (1)	
Wrench, Adjustable 6" Ergonomic	
Desktops/ Laptops/ or I-pads	
Routers	
Servers	
Switches	
Software tools for Analysis	
network protocol analyzer, e.g. TShark., iPerf3 to support tuning of many parameters buffers, and protocols (TCP, UDP, SCTP with IPv4 and IPv6).	
security scanner to create a map of the network.	
debugger program to find communication and/or data problems in SNMP monitoring configurations.	
IP address and port scanner.	
IP calculator	

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Item	Notes
Monitoring & Logging	
Network monitoring software solution to dig deep into the health and integrity of your systems and network. An approach to monitoring.	
system usage software.	
NetFlow Analyzer	
Server software	
Configuration & Transfer software	
a multi-vendor Python library	
network device software.	
Platform supports	
TFTP Server	
SFTP/SCP Server software	
For Network troubleshooting https://www.pluralsight.com/blog/it-ops/network-troubleshooting-tools	
Free tools: https://www.networkmanagementsoftware.com/top-17-free-tools-for-network-administrators/	
Sensors- pressure, magnetic, resistive, capacitance, photo electric	
PLCs	
Motors	
Actuators	
relays	
IC controllers	
Breadboard	
switches	
Printed circuit boards PCBs	
Power supplies	
Programmable manipulators	
1 cartesian	
(2) gantry	
(3) cylindrical	
(4) spherical	
(5) articulated	
(6) SCARA	
Robot controls	
1 Point to point (PTP)	

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Item	Notes
2 Continuous Path control	
3 Controlled path control	
Automation and programming control tools	
Programable Computer Numeric control	
Direct Numeric Control DNC	
Printed Circuit Boards (PCB's)	
computer-integrated manufacturing (CIM)	
HMI software	
PAC, PLC and controllers software	

*Must meet the guidelines for specialized computing equipment as outlined on the "CTE Equipment Guidelines" at www.azed.gov/cte/grants