(300) Computer Network Technology (S | PS)

Description
Demonstrate knowledge in fundamental networking concepts including network architecture, standards, topologies, protocols, and security. *This event includes a separate certification component which will be offered in conjunction with the BPA event at NLC; all members passing this component will receive an industry certification regardless of their overall event placement.* The certification offered will be IT Specialist Networking and upon passing the exam, members will be awarded 100 points to their final score. All persons planning to take a certification test MUST register with Certiport (www.certiport.com) before attending NLC to create their Certiport profile. Members must include their BPA member ID in their Certiport profile when they register online. For more information on the exam, visit: http://www.certiport.com

Eligibility
Any Secondary or Post-secondary division student member may enter this event.

Member must supply
Sharpened No. 2 pencils, pens
Cordless calculator: Electronic devices will be monitored according to ACT standards. See NLC Calculator Guidelines. Members who violate this rule will be *disqualified*.
Published and/or unpublished non-electronic written reference materials

> **No equipment, supplies, or materials other than those specified for an event will be allowed in the testing area. No previous Business Professionals of America tests and/or sample tests or facsimiles thereof (handwritten, photocopied, or keyed) may be taken into the testing area. Violation of this rule will result in disqualification.**

Competencies
- Demonstrate knowledge of OSI and TCP/IP models
- Demonstrate knowledge of IPv4
- Demonstrate knowledge of network adapters
- Demonstrate knowledge of network cabling
- Demonstrate knowledge of switches and routers
- Demonstrate knowledge of network connectivity
- Demonstrate knowledge of network troubleshooting
- Demonstrate knowledge of network protocols
- Demonstrate knowledge of TCP/IP subnetting and routing
- Demonstrate knowledge of DNS
- Demonstrate knowledge of Cloud and Virtualization
- Demonstrate knowledge of WINS
- Demonstrate knowledge of DHCP
- Demonstrate knowledge of IPv6
- Demonstrate knowledge of proxies and firewalls
- Demonstrate knowledge of troubleshooting tools
- Demonstrate knowledge of remote access protocols
- Demonstrate knowledge of network operating systems
- Demonstrate knowledge of network clients
- Demonstrate knowledge of directory services
- Demonstrate knowledge of administrative utilities
- Demonstrate knowledge of home wireless technologies

Method of evaluation
Objective Test
Certification test taken per conference schedule at NLC
Application: Top 10 members at national level only. Reference materials are allowed for the application portion. At the national level, scores from the preliminary round and objective test do *not* advance with member to finals. Final contest score is based solely on hands-on component.

Length of event
Preliminaries - No more than sixty (60) minutes for objective test, no more than one hundred twenty (120) minutes for certification test.
Finals - No more than sixty (60) minutes for hands-on tasks

Entries
Each state is allowed five (5) entries