

7-201. Network Nebraska; network edge device standard.

(1) Purpose. The purpose of this standard is to set minimum standards and specifications for network edge devices that would perform the routing and switching functions of voice, video, and data across the network and assure that packets would get to their correct destination while maintaining the appropriate quality of service (QoS).

(2) Technical Standards. Agencies and other entities electing to connect to Network Nebraska for purposes of transmitting data across the state shall comply with this standard.

(a) Network edge device specifications for new purchases: (1) QoS capabilities; (2) sufficient ports for desired network design; (3) security and/or firewall features; (4) routing and/or routing protocol; (5) traffic shaping and rate limiting; (6) VLAN (802.1q) support; (7) secure remote management (SSH); (8) hardware based encryption acceleration; (9) performance to meet anticipated usage demand; (10) compatibility with central site router features; and (11) IPv6 capable. Option include: a Layer 3 router for basic site deployment; an enhanced Layer 3 router for larger site deployment or higher performance; or a Layer 3 switch/firewall combination.

(b) Network edge device specifications for existing equipment: (1) QoS capabilities; (2) sufficient ports for desired network design; (3) security and/or firewall features; (4) routing and/or routing protocol; (5) traffic shaping and rate limiting; (6) VLAN (802.1q) support; (7) secure remote management (SSH); (8) hardware based encryption acceleration; (9) performance to meet anticipated usage demand; (10) compatibility with central site router features; and (11) IPv6 capable.

(3) Responsibilities.

(a) Network Nebraska Operational Entities. The Collaborative Aggregation Partnership, composed of the University of Nebraska Computer Services Network, the Office of the CIO, and Nebraska Educational Telecommunications, will be responsible for sharing the responsibilities of the network operations portion of Network Nebraska. The responsibility for identification and mitigation of non-compliant entities with respect to this standard resides with the Collaborative Aggregation Partnership.

(b) Education-Related Political Subdivisions. An education-related political subdivision shall provide notice in writing, as required by guidelines established by the University of Nebraska and the Chief Information Officer for participation in Network Nebraska, to the distance education director of the Educational Service Unit Coordinating Council, the University of Nebraska, and the Chief Information Officer prior to the use of any new or additional equipment

that will impact the use of Network Nebraska by such education-related political subdivision or other education-related political subdivisions. [Neb. Rev. Stat. § 86-520.01]

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History: Adopted on July 12, 2006. Amended on March 4, 2008; November 15, 2011; and July 12, 2018.

URL: <http://nitc.nebraska.gov/standards/7-201.pdf>