



July 8, 2022

Greetings from the State of Nebraska—Office of the Chief Information Officer (OCIO). For those of you who are new to Network Nebraska, my name is Ed Toner and I am the State CIO. In addition to my technology leadership role for State agencies, I also assist in the management of Network Nebraska.

Within this memo, I will announce the 2022-23 Network Nebraska fees and update you on several developments relative to this statewide education network. Several documents follow this cover letter which provide detailed information and budget documents related to Network Nebraska.

The Interregional Transport Fee will stay the same for 2022-23. With Governor Ricketts's approval of significant investments from his GEER I Funds, the Network Nebraska Participation Fee will experience a decrease from \$247/month to \$225/month. The GEER I Funds offset (1) Network Nebraska backbone costs and (2) increased DDoS protection to 40Gbps in 2023. The first 2022-23 monthly invoice will arrive the first week of August and reflect these changes. Please alert your accounting staff.

Statewide Zoom videoconferencing helped us tremendously with at-home teaching, learning, and tele-working. Zoom license rates will have a small increase for 2022-23. I credit the Network Nebraska Advisory Group (NNAG) with maintaining this as an outstanding service. Please contact Zoom administrator, Scott Jones (scott.jones@esusixteen.org), for more details about Zoom licensing and ancillary services. Zoom cost recovery and billing will be assumed by ESU 16 in Ogallala, effective with the 2022-23 year.

The unit rates for internet will stay the same for the 43 entities that purchase internet on behalf of all the schools, colleges, libraries, and municipalities in the state. For the eleventh year in a row, the Office of the CIO has performed the E-rate filing on the eligible portion of the statewide Internet purchase and will be billing the K-12 and library entities the post-E-rate unit cost after a 68% E-rate discount.

We are just beginning the fourth year of E-rate filing for 136 school district fiber circuits and working with providers to pay bills under the OCIO's ownership. The OCIO announces that Christina Struebing was hired at NDE in late March to help with E-rate support and Becca Kingery will soon be finishing her first year at the OCIO in support of Network Nebraska. Long-time NITC administrative manager Tom Rolfes will be retiring from the State on July 15 to join the NTIA as the Broadband Program Specialist to assist with Nebraska broadband grants over the next four years.

Network Nebraska Participant Letter – July 8, 2022

The OCIO and the University of Nebraska contribute many telecommunications support services to Network Nebraska that involve no charge-back. Those line items and their estimated value have been added to the Participation Fee Budget and Interregional Fee Budget (see pp 6-7 of this memo) for the first time.

Nebraska's K-12 pilot implementation of "eduroam" is mid-way through its second year and membership has grown steadily. Eduroam is a secure federated Wi-Fi authentication system that is being implemented across school districts, nonpublic schools, and higher education campuses. I invite you to visit www.connectEDnebraska.com for more details and to submit your application if you are new to eduroam.

The Network Nebraska Advisory Group (NNAG) is now in its 13th year of existence. It is comprised of eight representatives from K-12 and eight from higher education. These members usually meet every other month and indirectly represent the interests of all 293 entities presently on Network Nebraska. Their role is to provide strategic vision and operational recommendations to the Office of the Chief Information Officer as we manage and grow the network. If you are interested in serving on the NNAG, you may contact co-chairs Ron Cone, rcone@esu10.org, or Tom Peters, tpeters@cccneb.edu.

As the CIO for the State of Nebraska, I am very proud to be involved in this public-private project. Network Nebraska is recognized as one of the top networks of its type in the country.

If you have questions or comments about the contents of this memorandum or attachments, please contact me at ed.toner@nebraska.gov or you can reach me at 402-471-3717. You may also contact becca.kingery@nebraska.gov, 402-471-0267, or visit the Network Nebraska website and submit your comments: www.networknebraska.net.

For technical assistance, we encourage you to contact the University of Nebraska 24/7 Operations Center, noc@nebraska.edu, or 1-888-NET-NEBR (638-6327).

Sincerely,



Ed Toner
Chief Information Officer

Attachments

Network Nebraska Cost Recovery Rates for 2022-23

The NNAG, OCIO, NU-ITS and the Collaborative Aggregation Partnership (CAP) have reviewed the projected network revenue and expenses for the coming year and are prepared to announce the 2022-23 rates, which will take effect with the August 2022 billing:

REQUIRED

| <u>Network Nebraska 1.0 Participation Fee</u> | <u>Number of Entities</u> |
|---|---------------------------|
| \$225.50/month/entity (≥ 100Mbps) | 289 entities |

| <u>Network Nebraska .25 Participation Fee</u> | <u>Number of Entities</u> |
|---|---------------------------|
| \$56.38/month/entity (≤ 99Mbps) | 4 entities |

REQUIRED

| <u>Network Nebraska 1.0 Interregional Transport Fee</u> | <u>Number of Entities</u> |
|---|---------------------------|
| \$12.63/month/E-rate entity (≥100Mbps) | 268 entities |
| \$23.93/month/non-E-rate entity (≥100Mbps) | 21 entities |

| <u>Network Nebraska .25 Interregional Transport Fee</u> | <u>Number of Entities</u> |
|---|---------------------------|
| \$ 3.16/month/E-rate entity (≤99Mbps) | 2 entities |
| \$ 5.98/month/non E-rate entity (≤99Mbps) | 2 entities |

SUBSCRIPTION SERVICES

| <u>Network Nebraska Internet Access Unit Charge</u> | <u>Number of Entities</u> |
|---|---------------------------|
| \$.0800/Mbps/month for blended Internet (E-rate entities) | 18 entities |
| \$.2400/Mbps/month for blended Internet (non-E-rate entities) | 23 entities |
| \$.0300/Mbps/month surcharge for all entities for Peering Services | 40 entities |

| <u>Zoom Videoconferencing Statewide Contract</u> | <u>Number of Entities</u> |
|--|---------------------------|
| \$ 6.00/user/year | TBD |
| \$499.00/Zoom CRC Port/year | TBD |
| \$499.00/Zoom Room/year | TBD |

*Contact Scott Jones, scott.jones@esusixteen.org, 308-546-7153 about other ancillary services.

| <u>NU Nebraska Hall Rack Hosting Charge</u> | <u>Number of Entities</u> |
|---|---------------------------|
| \$628.00/month/Full Rack (42U) | TBD |
| \$314.00/month/Half Rack (21U) | TBD |
| \$ 15.00/month/Slot (1U) | TBD |

*Contact Greg Gray, ggray@nebraska.edu, 402-472-7605

Network Nebraska Historic Rates for 2007-2023

| Performance Year | Network Nebraska Participation Fee | Number of Entities |
|------------------|---|--------------------|
| 2022-23 | \$225.50/month/entity | 293 entities |
| 2021-22 | \$247.00/month/entity | 293 entities |
| 2020-21 | \$220.00/month/entity | 293 entities |
| 2019-20 | \$217.03/month/entity | 292 entities |
| 2018-19 | \$217.03/month/entity | 292 entities |
| 2017-18 | \$217.21/month/entity | 291 entities |
| 2016-17 | \$217.47/month/entity | 291 entities |
| 2015-16 | \$205.35/month/entity | 285 entities |
| 2014-15 | \$218.30/month/entity | 274 entities |
| 2013-14 | \$215.83/month/entity | 261 entities |
| 2012-13 | \$203.48/month/entity | 253 entities |
| 2011-12 | \$190.21/month/entity | 244 entities |
| 2010-11 | \$195.13/month/entity | 226 entities |
| 2009-10 | \$192.47/month/entity | 232 entities |
| 2008-09 | \$197.80/month/entity | 182 entities |
| 2007-08 | \$200.00/month/entity | 94 entities |

| Performance Year | Network Nebraska Interregional Transport Fee | Number of Entities |
|------------------|--|--------------------|
| Entities | | |
| 2022-23 | \$12.63/month/E-rate entity (\$23.93/month/college) | 293 entities |
| 2021-22 | \$12.49/month/E-rate entity (\$24.15/month/college) | 293 entities |
| 2020-21 | \$12.49/month/E-rate entity (\$24.15/month/college) | 293 entities |
| 2019-20 | \$12.29/month/E-rate entity (\$23.55/month/college) | 292 entities |
| 2018-19 | \$12.46/month/E-rate entity (\$ 23.55/month/college) | 292 entities |
| 2017-18 | \$17.72/month/E-rate entity (\$ 53.70/month/college) | 291 entities |
| 2016-17 | \$22.16/month/E-rate entity (\$ 67.16/month/college) | 291 entities |
| 2015-16 | \$22.12/month/E-rate entity (\$ 70.39/month/college) | 285 entities |
| 2014-15 | \$18.49/month/E-rate entity (\$ 57.79/month/college) | 274 entities |
| 2013-14 | \$17.38/month/E-rate entity (\$ 53.80/month/college) | 261 entities |
| 2012-13 | \$18.67/month/E-rate entity (\$ 61.28/month/college) | 253 entities |
| 2011-12 | \$31.69/month/E-rate entity (\$101.09/month/college) | 244 entities |
| 2010-11 | \$36.45/month/K-12 entity (\$115.78/month/college) | 226 entities |
| 2009-10 | \$34.48/month/K-12 entity (\$ 92.72/month/college) | 232 entities |
| 2008-09 | \$34.21/month/K-12 entity (\$ 93.35/month/college) | 182 entities |
| 2007-08 | \$ 0.00/month/K-12 entity [no backbone in service] | 94 entities |

| Performance Year | Network Nebraska Internet Access Unit Charge | Number of Entities |
|------------------|--|--------------------|
| 2020-23* | \$.0800/Mbps/month for K-12 (\$.24/Mbps/month for colleges) \$.0300/Mbps/month surcharge for K-12 and colleges for Peering Services | 42 entities |
| 2019-20 | \$.1140/Mbps/month for K-12 (\$.38/Mbps/month for colleges) \$.0355/Mbps/month surcharge for K-12 and colleges for Peering Services | 42 entities |
| 2018-19 | \$.2200/Mbps/month for K-12 (\$.70/Mbps/month for colleges) \$.0355/Mbps/month surcharge for K-12 and colleges for Peering Services | 42 entities |
| 2017-18 | \$.2662/Mbps/month for K-12 (\$.80/Mbps/month for colleges) \$.0405/Mbps/month surcharge for K-12 and colleges for Peering Services | 41 entities |
| 2016-17 | \$.2459/Mbps/month for K-12 (\$.79/Mbps/month for colleges) \$.0349/Mbps/month surcharge for K-12 and colleges for Peering Services | 41 entities |
| 2015-16 | \$.3024/Mbps/month for K-12 (\$.945/Mbps/month for colleges) \$.0231/Mbps/month surcharge for K-12 and colleges for 3Gbps CPS | 34 entities |
| 2014-15 | \$.3982/Mbps/month for K-12 (\$1.28/Mbps/month for colleges) \$.047/Mbps/month surcharge for K-12 and colleges for 3Gbps CPS | 32 entities |
| 2013-14 | \$.7750/Mbps/month for K-12 (\$2.50/Mbps/month for colleges) \$.070/Mbps/month surcharge for K-12 and colleges for 3Gbps CPS | 15 entities |

* = unchanged for 2020-23

Comprehensive Listing of Network Nebraska Services and Benefits (7/1/2022)

Student Learning Opportunities

- Statewide Clearinghouse and Videoconferencing Scheduling Software (www.nvis.esucc.org)
- High quality exchange of Nebraska K-12 and college video distance learning classes
- High bandwidth Internet2 peering access to over 90,000 education partners and content providers
- Internet2 programming and virtual museum trips from across the U.S./world
- Statewide contract pricing for Zoom videoconferencing and ancillary services

Connectivity/Transport

- Intranet Ethernet connectivity to all 293 Network Nebraska participants
- Interregional (high bandwidth backbone) Transport between Grand Island, Lincoln, Omaha, and Scottsbluff
- Access to 85Gbps of commodity Internet service with one of the lowest unit rates in the U.S.
- 10Gbps Internet2 Commercial Peering Service and prioritized routing to over 60,000 companies
- 20Gbps InterExchange Peering out of Omaha
- Co-location rack space at Lincoln core location as a subscription service
- Core router and core infrastructure cost avoidance through the University of Nebraska partnership
- Backbone transport provided by the University of Nebraska dark fiber circuits
- Dynamic provisioning of statewide Internet access

Network Management/Monitoring

- 24/7 network monitoring and operations center, 1-888-NET-NEBR (638-6327), noc@nebraska.edu
- Incident Tracking and Automated Notification System services
- Network abuse and nefarious activity monitoring, including Arbor DDoS prevention
- Route optimization and intelligent routing using Noction software
- Perfsonar distributed speed testing and network performance measurement
- IPv4/IPv6 Address management and allocation to members
- Network time server that transmits precise time information to network clients
- Level 1 network troubleshooting and support on Network Nebraska backbone, core network devices and University of Nebraska contracts for Internet access
- Level 2 network troubleshooting and support on Ethernet circuits and other participant routing and DNS
- Onsite and/or remote technician assistance, upon request

Administrative/E-rate

- RFP services and State Master Contract negotiations
- E-rate filing on the eligible portion of the Interregional Transport and statewide Internet
- Consolidated invoicing and E-rate filing on state-contracted fiber Ethernet circuits
- Membership in the Internet2 Community Anchor Program (CAP)
- Membership in the School, Health, Library Broadband (SHLB) Consortium
- Associate membership in the nationwide Quilt Consortium of Statewide Networks
- Management of the statewide purchase contracts for Ethernet transport services, Internet access, and select network equipment vendors
- E-rate archiving of bid documents, invoices, contracts, correspondence
- Continual Management of Consortium Letters of Agency to maintain E-rate eligibility
- OCIO Financial Solutions Services for budget development and vendor service orders
- State Billing services for Network Nebraska Participation Fee, Interregional Transport, and Ethernet
- Statewide partnership in eduroam implementation and cybersecurity training and awareness resources
- Network Nebraska website (www.networknebraska.net) development and support

Network Nebraska Participation Fee FY2022-23

Date of Last Revision: June 15, 2022

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| | | | | | | Cost Recovery Period | | | |
|--|-------|------------------------|--------------|--------------|------------|----------------------|---------------------|------|---|
| | Units | # of Payments Per Year | Price | Cost | Life Cycle | Annualized Cost | FY2022-23 Subtotals | Org. | Notes |
| Master Lease Interest Rate | | | | | | 2.0% | | | |
| Equipment: | | | | | | | | | |
| Arbor DDoS 10 Gig to 20 Gig upgrade for OMA and LNK TMS (Year 2 of 5) | 1 | 1 | \$ 191,004 | \$ 191,004 | 5 | \$ 40,174 | | NU | GEER I Funding/ESUCC |
| Arbor DDoS Equipment Refresh and 40 Gig Capacity for OMA and LNK TMS | 1 | 1 | \$ 1,701,315 | \$ 1,701,315 | 1 | \$ 1,701,315 | | NU | GEER I Funding/ESUCC |
| Juniper 10x10 Gig line cards (3) for MX (Year 3 of 5) | 3 | 1 | \$ 44,520 | \$ 133,560 | 5 | \$ 28,092 | \$ 28,092 | NU | |
| Juniper QFX5120-48Y-AFO2 (Year 1 of 5) | 4 | 1 | \$ 17,500 | \$ 70,000 | 5 | \$ 14,723 | \$ 14,723 | NU | 2x Farnam 2x Lincoln |
| Kearney Router Replacement (Year 1 of 5) | 1 | 1 | \$ 43,000 | \$ 43,000 | 5 | \$ 9,044 | \$ 9,044 | NU | |
| Network Nebraska Backbone Upgrade | 1 | 1 | \$ 699,642 | \$ 699,642 | 1 | \$ 699,642 | | NU | GEER I Funding/ESUCC |
| Opengear ACM7008-2-LMP | 4 | 1 | \$ 1,165 | \$ 4,660 | 1 | \$ 4,660 | \$ 4,660 | NU | |
| TV White Space Wireless Internet Project | 1 | 1 | \$ 50,000 | \$ 50,000 | 1 | \$ 50,000 | | OCIO | GEER I Funding/ESUCC |
| Equipment Subtotal | | | | | | | \$ 56,520 | | |
| Equipment Maintenance: | | | | | | | | | |
| Arbor Maintenance (Year 2 of 3) | 1 | 1 | \$ 107,086 | \$ 107,086 | 3 | \$ 36,807 | | NU | GEER I Funding/ESUCC |
| Arbor Maintenance on Additional 10 Gig Licenses | 1 | 1 | \$ 22,044 | \$ 22,044 | 1 | \$ 22,044 | \$ 22,044 | NU | Keep in budget until delivery/install of GEER I Funded equipment is known. |
| Arista 7150-52 10Gbps Maintenance | 2 | 1 | \$ 2,268 | \$ 4,536 | 1 | \$ 4,536 | \$ 4,536 | NU | |
| Arista 7150-24 10Gbps Maintenance | 4 | 1 | \$ 1,383 | \$ 5,532 | 1 | \$ 5,532 | \$ 5,532 | NU | |
| Efficient IP M1G-SDS-260-DDI-SA | 1 | 1 | \$ 2,251 | \$ 2,251 | 1 | \$ 2,251 | \$ 2,251 | NU | 3% increase reflected |
| Efficient IP M1G-SDS-550-DDI-SA | 1 | 1 | \$ 5,720 | \$ 5,720 | 1 | \$ 5,720 | \$ 5,720 | NU | 3% increase reflected |
| Ekinops DWDM Maintenance | 1 | 1 | \$ 54,723 | \$ 54,723 | 1 | \$ 54,723 | | NU | Cost incurred by U of N at no cost to Network Nebraska |
| Generator Repairs/Service - College Park | 0.5 | 1 | \$ 4,000 | \$ 2,000 | 1 | \$ 2,000 | \$ 2,000 | NU | Cost split 50/50 with the University of Nebraska System. |
| Juniper Router/Switch Maintenance -- All Combined (Year 2 of 5) | 1 | 1 | \$ 281,870 | \$ 281,870 | 5 | \$ 59,287 | \$ 59,287 | NU | Includes: SB, KRN, GICP, LNK, 1623 Farnam, and PKI |
| Juniper Router/Switch Maintenance -- MX Cards (3) | 1 | 1 | \$ 28,042 | \$ 28,042 | 1 | \$ 28,042 | \$ 28,042 | NU | |
| Juniper Router/Switch Maintenance -- Norfolk | 1 | 1 | \$ - | \$ - | 1 | \$ - | | NU | TBD based on delivery date of equipment and included first year of maintenance -- may not be expended until FY24. |
| Equipment Maintenance Subtotal | | | | | | | \$ 129,412 | | |
| Software: | | | | | | | | | |
| Broadband Automated Speed Test Software Development | 1 | 1 | \$ 250,000 | \$ 250,000 | 1 | \$ 250,000 | | OCIO | GEER I Funding/ESUCC |
| Noction: Increase Inbound License from 25G to 50G | 1 | 1 | \$ 18,000 | \$ 18,000 | 1 | \$ 18,000 | \$ 18,000 | NU | |
| Software Subtotal | | | | | | | \$ 18,000 | | |
| Software Maintenance: | | | | | | | | | |
| AlertSense | 0.25 | 1 | \$ 2,244 | \$ 561 | 1 | \$ 561 | \$ 561 | NU | |
| Atlassian StatusPage.io | 1 | 1 | \$ 4,789 | \$ 4,789 | 1 | \$ 4,789 | \$ 4,789 | NU | |
| Noction Maintenance | 1 | 1 | \$ 23,875 | \$ 23,875 | 1 | \$ 23,875 | \$ 23,875 | NU | |
| RADB | 1 | 1 | \$ 425 | \$ 425 | 1 | \$ 425 | \$ 425 | NU | |
| SolarWinds Maintenance | 0.5 | 1 | \$ 14,147 | \$ 7,074 | 1 | \$ 7,074 | \$ 7,074 | NU | |
| Software Maintenance Subtotal | | | | | | | \$ 36,724 | | |
| Subscriptions: | | | | | | | | | |
| 1623 Farnam Colocation Services | 1 | 12 | \$ 17,232 | \$ 17,232 | 1 | \$ 17,232 | \$ 17,232 | NU | 1 x 42U-Rack |
| 1623 Farnam Cross-Connects and Tie-Cables | 1 | 12 | \$ 10,080 | \$ 10,080 | 1 | \$ 10,080 | \$ 10,080 | NU | 8 x Cross-Connects, 24 x Tie-Cables. |
| ARIN Registry Services | 1 | 1 | \$ 2,225 | \$ 2,225 | 1 | \$ 2,225 | \$ 2,225 | NU | |
| Domain Registrations | 1 | 1 | \$ 369 | \$ 369 | 1 | \$ 369 | \$ 369 | NU | networknebraska.org, networknebraska.net, networknebraska.com |
| Internet2 Community Anchor Program (CAP) | 1 | 1 | \$ 41,000 | \$ 41,000 | 1 | \$ 41,000 | \$ 41,000 | NU | Prerequisite to enable Internet2 peering and eduroam pilot participation |
| Internet2 eduroam Support Organization Program | 1 | 1 | \$ 66,000 | \$ 66,000 | 1 | \$ 66,000 | | NU | Moved to Internet Cost Center. |
| Internet2 eduroam for Higher Education Members (that aren't subscribed directly) | 1 | 1 | \$ 7,365 | \$ 7,365 | 1 | \$ 7,365 | | NU | Moved to Internet Cost Center. |
| Network Nebraska Toll-Free Number | 1 | 1 | \$ 433 | \$ 433 | 1 | \$ 433 | \$ 433 | NU | |
| Remote Router Terminal Server Cellular Data Service | 7 | 12 | \$ 20 | \$ 1,680 | 1 | \$ 1,680 | \$ 240 | NU | SB, KRN, GICP, LNK, 1623 Farnam, Norfolk, and PKI |
| SHLB Coalition Membership | 1 | 1 | \$ 2,500 | \$ 2,500 | 1 | \$ 2,500 | \$ 2,500 | OCIO | |
| Internet2 R&E Network Member Fee | 1 | 1 | \$ 14,603 | \$ 14,603 | 1 | \$ 14,603 | | NU | Cost incurred by U of N at no cost to Network Nebraska |
| The Quilt Affiliate Membership | 1 | 1 | \$ 2,900 | \$ 2,900 | 1 | \$ 2,900 | | NU | Cost incurred by U of N at no cost to Network Nebraska |
| Great Plains Network (GPN) Membership & Network Program Fee | 1 | 1 | \$ 161,768 | \$ 161,768 | 1 | \$ 161,768 | | NU | Cost incurred by U of N at no cost to Network Nebraska |
| Subscriptions Subtotal | | | | | | | \$ 74,079 | | |
| Staff Support -- University of Nebraska System | | | | | | | | | |
| Network Engineering Services | 1 | 1 | \$ 240,000 | \$ 240,000 | 1 | \$ 240,000 | \$ 240,000 | NU | Estimate from FY22 invoices of \$20k/mo average. |
| Accounting Services | 1 | 1 | \$ 1,440 | \$ 1,440 | 1 | \$ 1,440 | \$ 1,440 | NU | Estimate from FY22 invoices of \$120/mo average. |
| Network Operations Center (NOC) Services | 1 | 1 | \$ 1,500 | \$ 1,500 | 1 | \$ 1,500 | \$ 1,500 | NU | Estimate from FY21/FY22 invoices of \$125/mo average. |
| Administration & Management | 1 | 1 | \$ - | \$ - | 1 | \$ - | | NU | Cost incurred by U of N at no cost to Network Nebraska |
| Cyber Security Engineering Services | 0 | 0 | \$ - | \$ - | 1 | \$ - | | NU | Cost incurred by U of N at no cost to Network Nebraska |
| eduroam Support Services | 1 | 1 | \$ - | \$ - | 1 | \$ - | | NU | Cost incurred by U of N at no cost to Network Nebraska |
| Training | 1 | 1 | \$ 1,875 | \$ 1,875 | 1 | \$ 1,875 | \$ 1,875 | NU | |
| Travel | 1 | 1 | \$ 7,500 | \$ 7,500 | 1 | \$ 7,500 | \$ 7,500 | NU | |
| Staff Support - UNS Subtotal | | | | | | | \$ 252,315 | | |
| Staff Support -- Office of the CIO | | | | | | | | | |
| Network Services Team (including benefits) | 0.05 | 12 | \$ 6,230 | \$ 3,738 | 1 | \$ 3,738 | \$ 3,738 | OCIO | |
| Admin Assistant | 1 | 12 | \$ 1,966 | \$ 23,592 | 1 | \$ 23,592 | \$ 23,592 | OCIO | |
| Travel/Videoconferencing | 1 | 1 | \$ 500 | \$ 500 | 1 | \$ 500 | \$ 500 | OCIO | |
| NNAG Outreach | 1 | 1 | \$ 2,500 | \$ 2,500 | 1 | \$ 2,500 | \$ 2,500 | OCIO | |
| OCIO Project Management--Backbone and NUSF-117 RFP | 1 | 1 | \$ 5,000 | \$ 5,000 | 1 | \$ 5,000 | \$ 5,000 | OCIO | |
| Staff Support - OCIO Subtotal | | | | | | | \$ 35,330 | | |
| Staff Support -- Nebraska Dept of Ed | | | | | | | | | |
| eduroam Reimbursement for RADIUS configuration and technical services | 1 | 1 | \$ 1,520,000 | \$ 1,520,000 | 1 | \$ 1,520,000 | | NDE | GEER I Funding/ESUCC |
| State E-rate Coordinator | 1 | 4 | \$ 5,250 | \$ 21,000 | 1 | \$ 21,000 | \$ 21,000 | NDE | |
| Travel | 1 | 1 | \$ 500 | \$ 500 | 1 | \$ 500 | \$ 500 | NDE | |
| Staff Support - NDE Subtotal | | | | | | | \$ 21,500 | | |
| Other: | | | | | | | | | |
| Operating Expenses: SFP Modules, Patch Cables, Termination Tools | 1 | 1 | \$ 7,500 | \$ 7,500 | 1 | \$ 7,500 | \$ 7,500 | NU | |
| Traffic Testing Equipment for Core Aggregation Points | 5 | 1 | \$ 2,000 | \$ 10,000 | 1 | \$ 10,000 | \$ 10,000 | NU | |
| Other Subtotal | | | | | | | \$ 17,500 | | |
| Total | | | | | | | \$ 641,379 | | |
| Indirect Cost Allocation: | | | | | | | | | |
| Indirect Cost Allocation (Interregional Transport Fee) | 7% | 1 | \$ 83,006 | \$ 5,810 | 1 | \$ 5,810 | \$ 5,810 | OCIO | |
| Indirect Cost Allocation (K-12 & H.E. Internet Access) | 7% | 1 | \$ 179,280 | \$ 12,550 | 1 | \$ 12,550 | \$ 12,550 | OCIO | |
| Indirect Cost Allocation (Participation Fee) | 7% | 1 | \$ 641,379 | \$ 44,897 | 1 | \$ 44,897 | \$ 44,897 | OCIO | |
| Indirect Cost Allocation Subtotal | | | | | | | \$ 63,257 | | |
| Planned Positive Variance | | | | | | | \$ 85,500 | OCIO | |
| Total | | | | | | | \$ 790,135 | | |
| Projected Units of Sale | | | | | | 292 | | | |
| Annual Cost Per Unit | | | | | | \$ 2,706 | | | |
| Monthly Cost Per Unit | | | | | | \$ 225.50 | | | |
| Total Projected Revenue | | | | | | \$ 790,135 | | | |

Higher Education Internet 2022-23

| Higher Education Entity | | Confirmation Date | 2022-23 Quantity (Mbps) | 2022-23 Unit Cost (projected) | 2022-23 Internet Monthly Total | 2022-23 Peering Quantity (Mbps) | 2022-23 CPS Unit Cost | 2022-23 CPS Monthly Total | Combined Monthly Total | Total Annual Invoice Cost | FY22-23 Validation/ Comments |
|-------------------------|------------------------------------|-------------------|-------------------------|-------------------------------|--------------------------------|---------------------------------|-----------------------|---------------------------|------------------------|---------------------------|------------------------------|
| 1 | Central Community College | 2/4/2022 | 900 | \$ 0.24 | \$ 216.00 | 900 | \$ 0.0300 | \$ 27.00 | \$ 243.00 | \$ 2,916.00 | Tom Peters |
| 2 | Chadron State College | 2/18/2022 | 2,000 | \$ 0.24 | \$ 480.00 | 2,000 | \$ 0.0300 | \$ 60.00 | \$ 540.00 | \$ 6,480.00 | Ann Burk |
| 3 | City of Lincoln | 2/3/2022 | 3,000 | \$ 0.24 | \$ 720.00 | 3,000 | \$ 0.0300 | \$ 90.00 | \$ 810.00 | \$ 9,720.00 | Craig Gifford |
| 4 | Clarkson College | 2/3/2022 | 800 | \$ 0.24 | \$ 192.00 | 800 | \$ 0.0300 | \$ 24.00 | \$ 216.00 | \$ 2,592.00 | Ryan Schurman |
| 5 | College of St. Mary | 2/18/2022 | 1,000 | \$ 0.24 | \$ 240.00 | 1,000 | \$ 0.0300 | \$ 30.00 | \$ 270.00 | \$ 3,240.00 | Kevin Sholl |
| 6 | Creighton University | 2/24/2022 | 3,000 | \$ 0.24 | \$ 720.00 | 3,000 | \$ 0.0300 | \$ 90.00 | \$ 810.00 | \$ 9,720.00 | Chris Vaverek |
| 7 | Doane University | 2/10/2022 | 1,500 | \$ 0.24 | \$ 360.00 | 1,500 | \$ 0.0300 | \$ 45.00 | \$ 405.00 | \$ 4,860.00 | Ryan Dorshorst |
| 8 | Lincoln City Libraries | 2/3/2022 | 500 | \$ 0.24 | \$ 120.00 | 500 | \$ 0.0300 | \$ 15.00 | \$ 135.00 | \$ 1,620.00 | Rod Cummings |
| 9 | Little Priest Tribal College | 2/2/2022 | 200 | \$ 0.24 | \$ 48.00 | 200 | \$ 0.0300 | \$ 6.00 | \$ 54.00 | \$ 648.00 | Morri Conway |
| 10 | Metro Community College | 2/10/2022 | 2,048 | \$ 0.24 | \$ 491.52 | 2,048 | \$ 0.0300 | \$ 61.44 | \$ 552.96 | \$ 6,635.52 | Seth Curtis |
| 11 | Midland University | 2/8/2022 | 1,000 | \$ 0.24 | \$ 240.00 | 1,000 | \$ 0.0300 | \$ 30.00 | \$ 270.00 | \$ 3,240.00 | Shane Perrien |
| 12 | Mid-Plains Community College | 2/7/2022 | 900 | \$ 0.24 | \$ 216.00 | 900 | \$ 0.0300 | \$ 27.00 | \$ 243.00 | \$ 2,916.00 | Trent Wiese |
| 13 | Nebraska Indian Community College | 2/2/2022 | 200 | \$ 0.24 | \$ 48.00 | 200 | \$ 0.0300 | \$ 6.00 | \$ 54.00 | \$ 648.00 | Justin Kocian |
| 14 | Nebraska Game and Parks Commission | 2/23/2022 | 100 | \$ 0.24 | \$ 24.00 | 100 | \$ 0.0300 | \$ 3.00 | \$ 27.00 | \$ 324.00 | Troy Kroeger |
| 15 | Nebraska Wesleyan University | 2/9/2022 | 1,750 | \$ 0.24 | \$ 420.00 | 1,750 | \$ 0.0300 | \$ 52.50 | \$ 472.50 | \$ 5,670.00 | Steve Dow |
| 16 | Northeast Community College | 2/18/2022 | 300 | \$ 0.24 | \$ 72.00 | 300 | \$ 0.0300 | \$ 9.00 | \$ 81.00 | \$ 972.00 | Field May |
| 17 | Peru State College | 2/18/2022 | 750 | \$ 0.24 | \$ 180.00 | 750 | \$ 0.0300 | \$ 22.50 | \$ 202.50 | \$ 2,430.00 | Gene Beardslee |
| 18 | Southeast Community College | 2/7/2022 | 2,000 | \$ 0.24 | \$ 480.00 | 2,000 | \$ 0.0300 | \$ 60.00 | \$ 540.00 | \$ 6,480.00 | Edward Koster |
| 19 | Union College | 2/3/2022 | 800 | \$ 0.24 | \$ 192.00 | 800 | \$ 0.0300 | \$ 24.00 | \$ 216.00 | \$ 2,592.00 | Richard Henriques |
| 20 | University of Nebraska | 2/18/2022 | 200 | \$ 0.24 | \$ 48.00 | | \$ 0.0300 | \$ - | \$ 48.00 | \$ 576.00 | Greg Gray |
| 21 | UNMC/Nebraska Medicine | 2/22/2022 | 5,000 | \$ 0.24 | \$ 1,200.00 | | \$ 0.0300 | \$ - | \$ 1,200.00 | \$ 14,400.00 | Steve Busby |
| 22 | Wayne State College | 2,18/2922 | 2,500 | \$ 0.24 | \$ 600.00 | 2,500 | \$ 0.0300 | \$ 75.00 | \$ 675.00 | \$ 8,100.00 | John Dunning |
| 23 | Western Nebraska Community College | 2/18/2022 | 1,000 | \$ 0.24 | \$ 240.00 | 1,000 | \$ 0.0300 | \$ 30.00 | \$ 270.00 | \$ 3,240.00 | Loren Moench |
| TOTALS | | 2022-23 | 31,448 | | \$ 7,547.52 | 26,248 | | \$ 787.44 | \$ 8,334.96 | \$ 100,019.52 | |
| | | 2021-22 | 29,348 | | \$90,570.24 | | | \$9,449.28 | \$100,019.52 | | |
| | | % change | 7.2% | | \$84,522.24 | | | | | | |
| | | | | | 7.2% | | | | | | |

| | A | B | C | D | E | F | G |
|----|--|---------------------|--------------------------|------------------------------|---------------------------------|----------------|-----------------|
| 1 | Network Nebraska Interregional Transport Fee FY 2022-23 | | | | Cost Recovery Period | | |
| 2 | | | | | | | |
| 3 | Date of Last Revision: June 7, 2022 | Units | # of Payments Per Year | Price | Cost | Life Cycle | Annualized Cost |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | Backbone Transport Leased Lit Circuit Costs | | | | | | |
| 8 | Grand Island to Omaha, 10 Gbps (Great Plains, 89974, Line 174) | 1 | 12 | \$ 1,911.00 | \$22,932.00 | 1 | \$22,932.00 |
| 9 | Kearney UNK to Scottsbluff, 6 Gbps (NebraskaLink 89977, Lines 230-231) | 1 | 12 | \$ 1,711.20 | \$20,534.40 | 1 | \$20,534.40 |
| 10 | Scottsbluff to Omaha, 6 Gbps (Allo 89978, Lines 20-21) | 1 | 12 | \$ 1,385.00 | \$16,620.00 | 1 | \$16,620.00 |
| 11 | Norfolk to Grand Island, 2Gbps (Great Plains, 89971, Line 177) | 1 | 12 | \$ 1,910.00 | \$22,920.00 | 1 | \$22,920.00 |
| 12 | | | | | | | |
| 13 | Leased Lit Fiber Subtotal | | | | \$83,006.40 | | \$83,006.40 |
| 14 | | | | | | | |
| 15 | Admin Prog Officer II Costs (OCIO) | 1 | 12 | \$ 1,353.33 | \$16,240.00 | 1 | \$16,240.00 |
| 16 | | | | | | | |
| 17 | Cost Center Total | | | | | | \$99,246.40 |
| 18 | | | | | | | |
| 19 | Projected Units of Sale | | | | | | 289 |
| 20 | | | | | | | |
| 21 | Dark Fiber Transport IRU Circuit Costs--incurred by NU at no cost to NN | | | | | | |
| 22 | Dark Fiber IRU: Lumen/Lincoln - Kansas City | 1 | 1 | \$ 99,494 | \$ 99,494 | 1 | \$ 99,494 |
| 23 | Dark Fiber IRU: OPTK/Lincoln - Grand Island - Kearney | 1 | 1 | \$ 37,000 | \$ 37,000 | 1 | \$ 37,000 |
| 24 | Dark Fiber IRU: Unite Private Networks (UPN)/Lincoln - Omaha | 1 | 1 | \$ 97,800 | \$ 97,800 | 1 | \$ 97,800 |
| 25 | Annual Dark Fiber IRU Subtotal | | | | | | \$ 234,294 |
| 26 | | | | | | | |
| 27 | | | | | | | |
| 28 | FY 2020-21 E-RATE CALCULATIONS | | | | Total Units | K-12 Units | H.E. Units |
| 29 | | | | | 289 | 266.5 | 22.5 |
| 30 | Form 471 Certification Results | | 3/22/2022 | Cost Recovery Formula | Annual | Monthly | Total |
| 31 | Total Funding Year pre-cost allocation amount | | \$ 83,006.40 | Higher Ed Contributions | \$ 287.22 | \$ 23.93 | \$ 6,462.44 |
| 32 | Total Annual Cost Allocation for Higher Education | | \$ 5,958.00 | | | | |
| 33 | Total Funding Year pre-discount amount | | \$ 77,048.40 | | | | |
| 34 | Total Funding Commitment Request (68%) | | \$ 52,392.91 | E-rate | | \$ 16.38 | \$52,392.91 |
| 35 | | | | K-12 (post erate) | | \$ 7.55 | \$24,151.05 |
| 36 | Total Budgeted Amount allocated to resources not eligible for Erate | | \$ 539,136.00 | K-12 Contributions | | | \$76,543.96 |
| 37 | Total amount necessary for the applicant to pay the non-discount share | | \$ 539,136.00 | TOTAL | | | \$83,006.40 |
| 38 | | | | | | | |
| 39 | INTERREGIONAL TRANSPORT FEE, 2007-PRESENT | | | | | | |
| 40 | | | | | | | |
| 41 | Performance Year | K-12 Monthly | Higher Ed Monthly | Total # entities | Comments | | |
| 42 | 2007-08 | \$ - | \$ - | 94 | (No backbone in service) | | |
| 43 | 2008-09 | \$ 34.21 | \$ 93.35 | 182 | (State RFP 1752) | | |
| 44 | 2009-10 | \$ 34.48 | \$ 92.72 | 232 | | | |
| 45 | 2010-11 | \$ 36.45 | \$ 115.78 | 226 | (1 entity, 1 fee structure) | | |
| 46 | 2011-12 | \$ 31.69 | \$ 101.09 | 246 | | | |
| 47 | 2012-13 | \$ 18.67 | \$ 61.28 | 252 | (State RFPs 3827, 3886) | | |
| 48 | 2013-14 | \$ 17.38 | \$ 53.80 | 261 | | | |
| 49 | 2014-15 | \$ 18.30 | \$ 57.79 | 274 | (State RFP 4582) | | |
| 50 | 2015-16 | \$ 22.12 | \$ 70.39 | 285 | (ESU 3, 5, 6 Aggregations) | | |
| 51 | 2016-17 | \$ 21.49 | \$ 67.16 | 291 | | | |
| 52 | 2017-18 | \$ 17.72 | \$ 53.70 | 291 | (State RFP 5562) | | |
| 53 | 2018-19 | \$ 12.46 | \$ 30.93 | 292 | (including surcharge for Admin) | | |
| 54 | 2019-20 | \$ 12.29 | \$ 23.55 | 292 | (including surcharge for Admin) | | |
| 55 | 2020-21 | \$ 12.49 | \$ 24.15 | 292 | (including surcharge for Admin) | | |
| 56 | 2021-22 | \$ 12.49 | \$ 24.15 | 292 | (including surcharge for Admin) | | |
| 57 | 2022-23 | \$ 12.63 | \$ 23.93 | 289 | (including surcharge for Admin) | | |

| | 2022-23 Statewide E-rate Internet | | | | | | | | | | | |
|----|---|-----------------------|----------------------|-------------------------|---|--------------------------------|-----------------------------|-----------------------|---------------------------|------------------------|---------------------------|--------------------|
| | Education Entity | Date Received by OCIO | NN Aggregation Point | 2022-23 Quantity (Mbps) | 2022-23 Unit Cost POST-ERATE (\$/Mbps/month) PROJECTED COST | 2022-23 Internet Monthly Total | 2022-23 CPS Quantity (Mbps) | 2022-23 CPS Unit Cost | 2022-23 CPS Monthly Total | Combined Monthly Total | Total Annual Invoice Cost | Respondent |
| 1 | Brownell-Talbot School | 3/8/2022 | Omaha | 800 | \$ 0.0800 | \$ 64.00 | 800 | \$ 0.0300 | \$ 24.00 | \$ 88.00 | \$ 1,056.00 | Ed Krueger |
| 2 | DHHS-Nebraska | 2/24/2022 | Lincoln | 200 | \$ 0.0800 | \$ 16.00 | 200 | \$ 0.0300 | \$ 6.00 | \$ 22.00 | \$ 264.00 | Mark Nelson |
| 3 | Educational Service Units 1,2,7,8,17 (NNNC) | 2/21/2022 | Omaha | 8,000 | \$ 0.0800 | \$ 640.00 | 8,000 | \$ 0.0300 | \$ 240.00 | \$ 880.00 | \$ 10,560.00 | Andy Boell |
| 4 | Educational Service Unit 03 | 2/9/2022 | Omaha | 15,000 | \$ 0.0800 | \$ 1,200.00 | 15,000 | \$ 0.0300 | \$ 450.00 | \$ 1,650.00 | \$ 19,800.00 | Bill Pulte |
| 5 | Educational Service Unit 05 (SNDLC) | 2/18/2022 | Lincoln | 2,500 | \$ 0.0800 | \$ 200.00 | 2,500 | \$ 0.0300 | \$ 75.00 | \$ 275.00 | \$ 3,300.00 | Ryan McDowell |
| 6 | Educational Service Units 04-06 (DVLG) | 2/3/2022 | Lincoln | 4,500 | \$ 0.0800 | \$ 360.00 | 4,500 | \$ 0.0300 | \$ 135.00 | \$ 495.00 | \$ 5,940.00 | Jamen Hall |
| 7 | Educational Service Unit 09 | 2/18/2022 | G.I. | 2,500 | \$ 0.0800 | \$ 200.00 | 2,500 | \$ 0.0300 | \$ 75.00 | \$ 275.00 | \$ 3,300.00 | Gary Needham |
| 8 | Educational Service Unit 10 | 2/23/2022 | G.I. | 5,000 | \$ 0.0800 | \$ 400.00 | 5,000 | \$ 0.0300 | \$ 150.00 | \$ 550.00 | \$ 6,600.00 | Ron Cone |
| 9 | Educational Service Unit 11 | 2/3/2022 | G.I. | 1,250 | \$ 0.0800 | \$ 100.00 | 1,250 | \$ 0.0300 | \$ 37.50 | \$ 137.50 | \$ 1,650.00 | Wade Gibson |
| 10 | Educational Service Unit 13 | 2/28/2022 | Omaha | 2,500 | \$ 0.0800 | \$ 200.00 | 2,500 | \$ 0.0300 | \$ 75.00 | \$ 275.00 | \$ 3,300.00 | B.J. Peters |
| 11 | Educational Service Unit 15 | 2/25/2022 | G.I. | 950 | \$ 0.0800 | \$ 76.00 | 950 | \$ 0.0300 | \$ 28.50 | \$ 104.50 | \$ 1,254.00 | Scott Jones |
| 12 | Educational Service Unit 16 | 2/25/2022 | G.I. | 1,250 | \$ 0.0800 | \$ 100.00 | 1,250 | \$ 0.0300 | \$ 37.50 | \$ 137.50 | \$ 1,650.00 | Scott Jones |
| 13 | Grand Island Public Library | 2/24/2022 | G.I. | 300 | \$ 0.0800 | \$ 24.00 | 300 | \$ 0.0300 | \$ 9.00 | \$ 33.00 | \$ 396.00 | Celine Swan |
| 14 | Columbus Public Schools | 2/25/2022 | Lincoln | 3,000 | \$ 0.0800 | \$ 240.00 | 3,000 | \$ 0.0300 | \$ 90.00 | \$ 330.00 | \$ 3,960.00 | Leonard Kwapnioski |
| 15 | Lexington Public Schools | 2/15/2022 | G.I. | 3,000 | \$ 0.0800 | \$ 240.00 | 3,000 | \$ 0.0300 | \$ 90.00 | \$ 330.00 | \$ 3,960.00 | Kristi Jergensen |
| 16 | Lincoln Catholic Diocese School System | 2/7/2022 | Lincoln | 750 | \$ 0.0800 | \$ 60.00 | 750 | \$ 0.0300 | \$ 22.50 | \$ 82.50 | \$ 990.00 | Chris Hobbs |
| 17 | Lincoln Public Schools (ESU 18) | 2/20/2022 | Lincoln | 12,000 | \$ 0.0800 | \$ 960.00 | 12,000 | \$ 0.0300 | \$ 360.00 | \$ 1,320.00 | \$ 15,840.00 | Tim Klein |
| 18 | Omaha Public Library | 2/18/2022 | Omaha | 2,000 | \$ 0.0800 | \$ 160.00 | 2,000 | \$ 0.0300 | \$ 60.00 | \$ 220.00 | \$ 2,640.00 | Jason Goossen |
| 19 | Omaha Public Schools (ESU 19) | 2/8/2022 | Omaha | 15,000 | \$ 0.0800 | \$ 1,200.00 | 15,000 | \$ 0.0300 | \$ 450.00 | \$ 1,650.00 | \$ 19,800.00 | Bobbi Gatrost |
| | | | TOTAL | 80,500 | | \$ 6,440.00 | 80,500 | | \$ 2,415.00 | \$ 8,855.00 | \$ 106,260.00 | |
| | | | Omaha | 40,800 | | \$ 77,280.00 | | | \$ 28,980.00 | \$ 106,260.00 | | |
| | | | Lincoln | 19,950 | | | | | | | | |
| | | | Grand Island | 16,750 | | | | | | | | |
| | | | 2022-23 | 80,500 | | \$ 77,280.00 | | | | | | |
| | | | 2021-22 | 70,750 | | \$ 67,920.00 | | | | | | |
| | | | % change | 13.8% | | 13.8% | | | | | | |