



July 26, 2023

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.

Directly below you will find an overview of the 2023-24 Network Nebraska fees. In the pages preceding this cover memo you will see several documents follow providing details of the budget, a comprehensive list of member benefits, and other valuable information.

### **2023-24 Network Nebraska Member Rates**



Last year we were able to provide a reduction in the Participation Fee through utilization of Governor Emergency Education Relief (GEER) Funds while upgrading equipment and paying for utilized services. Because the GEER funds are not available for the 2023-24 year, we have a need to return some costs back to our participants. The 2023-24 monthly Participation Fee for Network Nebraska will be \$255.00, an increase from \$225.50 from the 2022-23 year.

The Interregional Transport Fee will stay the same for 2023-24. Additionally, 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. The first 2023-24 monthly invoice will arrive the first week of August and reflect these changes. Please alert your accounting staff.

As a reminder, the OCIO and the University of Nebraska contribute many telecommunications support services to Network Nebraska that involve no charge-back. For informational purposes 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).

### **Zoom**

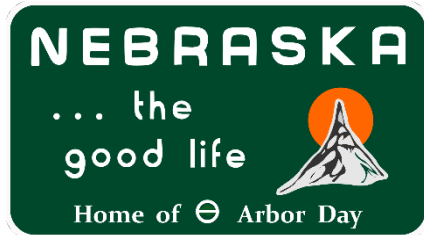
Statewide Zoom videoconferencing continues to be available for Network Nebraska members and pricing remains consistent for the 2023-24 year. Please contact Zoom administrator, Scott Jones ([scott.jones@esusixteen.org](mailto:scott.jones@esusixteen.org)), for more details about Zoom licensing and ancillary services. Zoom cost recovery will continue to be billed by ESU 16 in Ogallala.

### **Highlighted Member Benefits**

Below are some of benefits of participating in Network Nebraska that are most valued by our members. We understand that membership to Network Nebraska is voluntary, so we strive to continue to provide services and benefits unparalleled in the private sector.

## Diverse. Resilient. There When You Need It.

Network Nebraska members can take advantage of connectivity to resilient upstream providers such as Windstream, Lumen, and Hurricane Electric. In partnership with the University of Nebraska, Network Nebraska can utilize the advanced research and education network resources provided by Internet2.

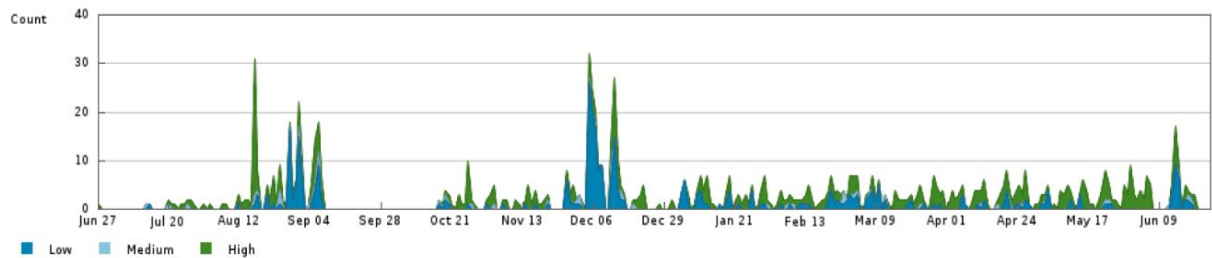


Finally, new to the 2023-24 fiscal year, members will be able to access a more direct connection to Google, Meta, and Microsoft services through a 100G connection to OmahaIX.

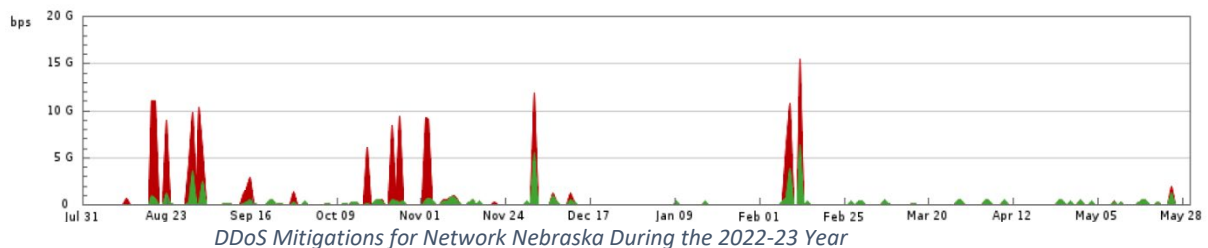
Network Nebraska utilizes an intelligent routing platform to take full advantage of these powerful and diverse networks. This is witnessed via our connections to statewide testing sites, Google services, Microsoft, Apple and several thousand others. As a result, we see secure, reliable, and fast connections to the services you use most.

## DDoS Protection

As cyber threats continue to evolve, so has our approach. Currently, one of the most widely used methods to attack our educational partners is through Distributed Denial of Service (DDoS). Often these attacks can be initialized by our own students in hopes of disrupting the networks that education systems have become reliant upon. In 2021 the Network Nebraska Advisory Group (NNAG) approved an increase in DDoS protection, and that additional protection is still in place today. Since that implementation, our DDoS protection has identified numerous potential attacks. The largest of these attacks thus far has been a 10Gbps attack, resulting in a substantial overall throughput of 2.76 TB of mitigated traffic in a single instance. Our DDoS protection system implemented robust countermeasures during these outbreaks to prevent system outages and keep our partners connected.



*DoS Alerts for Network Nebraska During the 2022-23 Year*



*DoS Mitigations for Network Nebraska During the 2022-23 Year*

## IP Addresses

By assigning school districts their own partition of IP address subnets they are empowered with the ability to utilize static IP addresses as necessary, giving your



Information Technology teams an additional level of control over the networks they administer. By utilizing assigned IP subnets, your networks experience benefits such as better stability, faster connection speeds, and easier troubleshooting via remote access. These IP addresses are specific to Network Nebraska and are not reliant upon the underlying Ethernet Transport Provider changes; therefore, should your transport service provider change your IP addresses will remain the same.

In addition to all this, Network Nebraska has the capability to assign IPv6 networks to those entities ready to grow into the next generation of IP addressing.

## Server Hosting

Network Nebraska members have access to server hosting at several of our aggregation points. Having access to server hosting has allowed our educational partners the ability to create virtual machines for school districts to use, generate backups for schools and ESUs, as well as hosting firewalls for traffic to filter through by an educational entity.

## eduroam

Eduroam is a secure, world-wide roaming access service specifically developed for the research and education communities. Founded in Europe, it has been in use globally for over a decade and had already been widely used in the United States Higher Education sphere for years. It wasn't until 2020 that educational partners in the K-12 space were invited to participate. Nebraska was one of three states invited to participate in the initial pilot. As of the start of this educational year 66% of Nebraska's public K-12 school districts have signed up to deploy eduroam. This allows faculty and students alike the ability to connect to eligible hotspots worldwide seamlessly. You can find more information about the eduroam program at [www.connectEDnebraska.com](http://www.connectEDnebraska.com).



## Network Nebraska Advisory Group

The Network Nebraska Advisory Group (NNAG) is now in its 14th year of existence. It is comprised of eight representatives from K-12 and eight from higher education. These members meet bimonthly and indirectly represent the interests of the nearly 300 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 continue to manage and grow the network.

Please don't hesitate to reach out to our team at the OCIO with any questions or comments about Network Nebraska or this memo. Becca can be reached at

[becca.kingery@nebraska](mailto:becca.kingery@nebraska) or (402) 471-0267. I can be reached at [ed.toner@nebraska.gov](mailto:ed.toner@nebraska.gov) or 402-471-3717. You can also visit the Network Nebraska website and submit your comments: [www.networknebraska.net](http://www.networknebraska.net). For E-Rate support, please contact Chris Struebing with the Nebraska Department of Education at [christina.struebing@nebraska.gov](mailto:christina.struebing@nebraska.gov).

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

As the CIO for the State of Nebraska, I continue to be 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.

Sincerely,

A handwritten signature in black ink, appearing to read "Ed Toner", with a long horizontal flourish extending to the right.

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 2023-24 rates, which will take effect with the August 2023 billing:

### REQUIRED

Network Nebraska 1.0 Participation Fee \$255.00/month/entity ( $\geq 100$ Mbps)	Number of Entities 288 entities
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Network Nebraska .25 Participation Fee \$63.75/month/entity ( $\leq 99$ Mbps)	Number of Entities 9 entities
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### REQUIRED

Network Nebraska 1.0 Interregional Transport Fee \$12.63/month/E-Rate entity ( $\geq 100$ Mbps) \$23.93/month/Non-E-Rate entity ( $\geq 100$ Mbps)	Number of Entities 266 entities 21 entities
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Network Nebraska .25 Interregional Transport Fee \$ 3.16/month/E-Rate entity ( $\leq 99$ Mbps) \$ 5.98/month/Non-E-Rate entity ( $\leq 99$ Mbps)	Number of Entities 7 entities 2 entities
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### SUBSCRIPTION SERVICES

Network Nebraska Internet Access Unit Charge \$.0800/Mbps/month for blended Internet (E-Rate entities) \$.2400/Mbps/month for blended Internet (non-E-Rate entities) \$.0300/Mbps/month surcharge for all entities for Peering Services	Number of Entities 18 entities 23 entities 40 entities
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Zoom Videoconferencing Statewide Contract \$ 6.00/user/year \$499.00/Zoom CRC Port/year \$499.00/Zoom Room/year	Number of Entities TBD TBD TBD
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\*Contact Scott Jones, [scott.jones@esusixteen.org](mailto:scott.jones@esusixteen.org), 308-546-7153 about other ancillary services.

NU Nebraska Hall Rack Hosting Charge \$628.00/month/Full Rack (42U) \$314.00/month/Half Rack (21U) \$ 15.00/month/Slot (1U)	Number of Entities TBD TBD TBD
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\*Contact Greg Gray, [ggray@nebraska.edu](mailto:ggray@nebraska.edu), 402-472-7605

## Comprehensive Listing of Network Nebraska Services and Benefits (7/1/2023)

### Student Learning Opportunities

- Statewide Clearinghouse and Videoconferencing Scheduling Software ([www.nvis.esucc.org](http://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

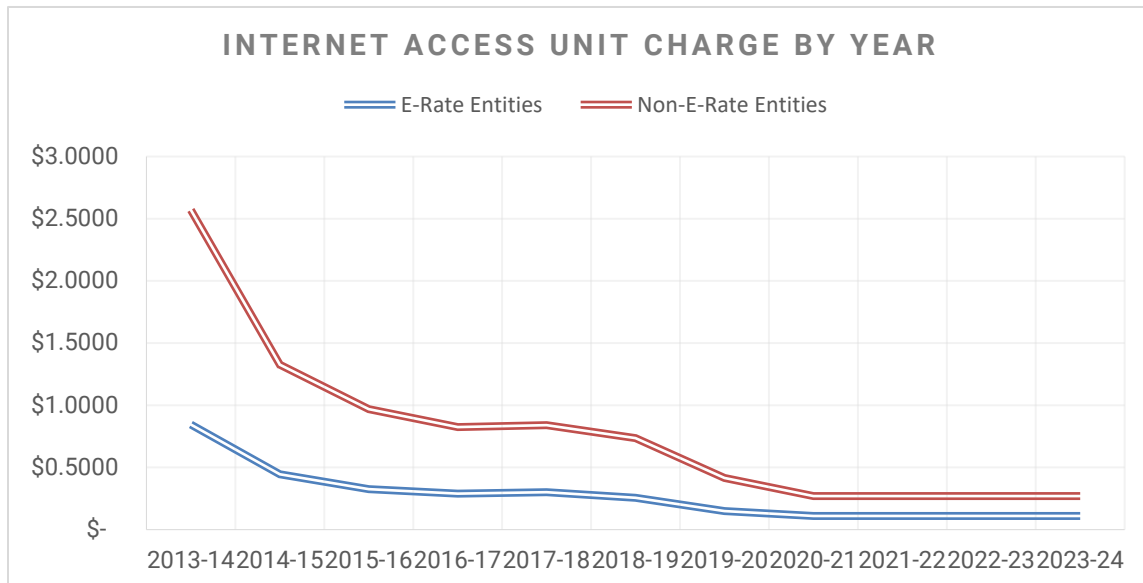
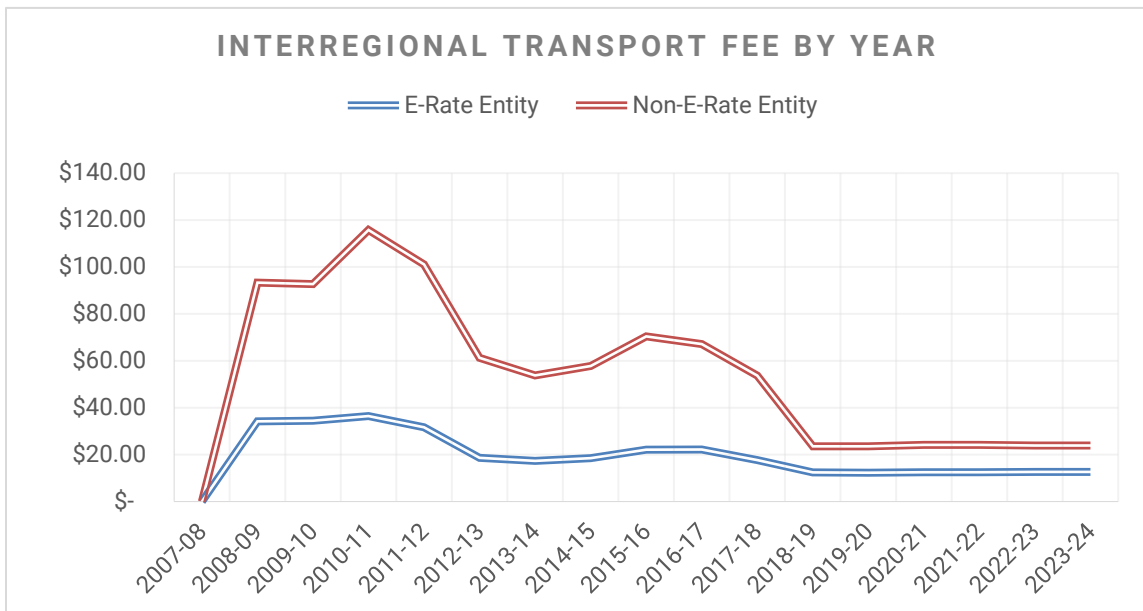
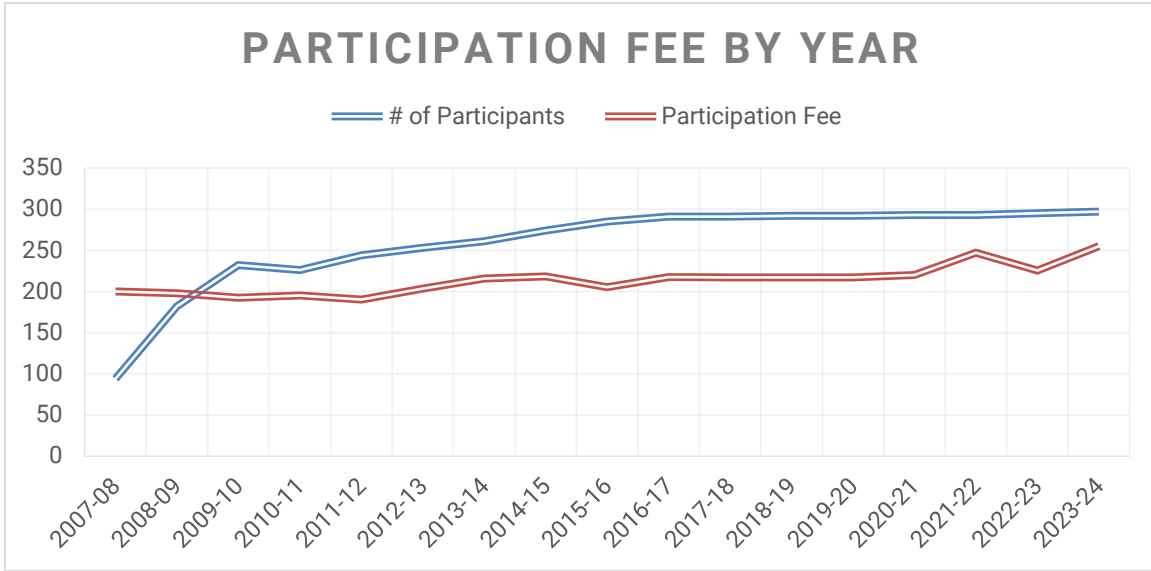
### Network Management/Monitoring

- 24/7 network monitoring and operations center, 1-888-NET-NEBR (638-6327), [noc@nebraska.edu](mailto: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](http://www.networknebraska.net)) development and support

# Network Nebraska Historic Rates for 2007-2024





# Network Nebraska Participation Fee FY 2023-24

Date of Last Revision: April 19, 2023

	# of Payments		Price	Cost Recovery Period			Annualized Cost	FY2023-24 Subtotals	Org.
	Units	Per Year		Cost	Life Cycle				
Master Lease Interest Rate							2.0%		
<b>Equipment:</b>									
Juniper 10x10 Gig line cards (3) for MX (Year 4 of 5)	3	1	\$ 44,520	\$ 133,560	5	\$ 28,092	\$ 28,092	NU	
Juniper QFX5120-48Y-AFO2 (Year 2 of 5)	4	1	\$ 17,500	\$ 70,000	5	\$ 14,723	\$ 14,723	NU	
Norfolk router (Year 2 of 5)	1	1	\$ 112,439	\$ 112,439	5	\$ 23,650	\$ 23,650	NU	
Kearney Router Replacement (Year 2 of 5)	1	1	\$ 43,000	\$ 43,000	5	\$ 9,044	\$ 9,044	NU	
High capacity port augmentation (4 switches) (Year 1 of 5)	1	1	\$ 152,000	\$ 152,000	5	\$ 31,971	\$ 31,971	NU	
High capacity port augmentation (advanced licensing) (Year 1 of 5)	1	1	\$ 53,000	\$ 53,000	5	\$ 11,148	\$ 11,148	NU	
<b>Equipment Subtotal</b>							<b>\$ 118,628</b>		
<b>Equipment Maintenance:</b>									
Efficient IP M1G-SDS-260-DDI-SA	1	1	\$ 2,364	\$ 2,364	1	\$ 2,364	\$ 2,364	NU	
Efficient IP M1G-SDS-550-DDI-SA	1	1	\$ 6,006	\$ 6,006	1	\$ 6,006	\$ 6,006	NU	
Noction IRP VM server and support	1	1	\$ 600	\$ 600	1	\$ 600	\$ -	NU	
Speedtest VM server and support	1	1	\$ 600	\$ 600	1	\$ 600	\$ -	NU	
Ekinops Celestis VM Server and Support	1	1	\$ 600	\$ 600	1	\$ 600	\$ -	NU	
Ekinops DWDM Maintenance	1	1	\$ 54,723	\$ 54,723	1	\$ 54,723	\$ -	NU	
Generator Repairs/Service - College Park	0.5	1	\$ 4,000	\$ 2,000	1	\$ 2,000	\$ 2,000	NU	
Juniper Router/Switch Maintenance -- All Combined (Year 3 of 5)	1	1	\$ 281,870	\$ 281,870	5	\$ 59,287	\$ 59,287	NU	
Juniper Router/Switch Maintenance -- MX Cards (3) (Year 3 of 5)	1	1	\$ 28,042	\$ 28,042	1	\$ 28,042	\$ 28,042	NU	
Juniper Router/Switch Maintenance -- Norfolk MX480	1	1	\$ 7,300	\$ 7,300	3	\$ 2,509	\$ 2,509	NU	
Juniper Router/Switch Maintenance -- Omaha MX960 (hardware)	1	1	\$ 8,700	\$ 8,700	3	\$ 2,990	\$ 2,990	NU	
Juniper Router/Switch Maintenance -- Omaha MX960 (jflow)	1	1	\$ 18,475	\$ 18,475	3	\$ 6,350	\$ 6,350	NU	
Juniper Router/Switch Maintenance -- QFX5120-48Y-AFO2 Aggregate switches (hardware/licenses)	4	1	\$ 4,175	\$ 16,700	3	\$ 5,740	\$ 5,740	NU	
Juniper Router/Switch Maintenance -- MX Cards for Norfolk, Lincoln, Omaha	1	1	\$ 211,000	\$ 211,000	3	\$ 72,523	\$ 72,523	NU	
<b>Equipment Maintenance Subtotal</b>							<b>\$ 187,811</b>		
<b>Software:</b>									
Juniper MX960 J-Flow License	1	1	\$ 73,710	\$ 73,710	3	\$ 25,335	\$ 25,335	NU	
Arbor ATLAS Intelligence Feed / Arbor Sentinel for Automated DDoS Protection	1	1	\$ 33,125	\$ 33,125	1	\$ 33,125	\$ 33,125	NU	
<b>Software Subtotal</b>							<b>\$ 58,460</b>		
<b>Software Maintenance:</b>									
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	
<b>Software Maintenance Subtotal</b>							<b>\$ 29,650</b>		
<b>Subscriptions:</b>									
1623 Farnam Colocation Services	1	12	\$ 1,470	\$ 17,640	1	\$ 17,640	\$ 17,640	NU	
1623 Farnam Cross-Connects and Tie-Cables	1	12	\$ 1,086	\$ 13,032	1	\$ 13,032	\$ 13,032	NU	
Aventus Kearney Colocation Services	1	3	\$ 1,250	\$ 3,750	1	\$ 3,750	\$ 3,750	NU	
Aventus Kearney Cross-Connects and Tie-Cables	1	3	\$ 500	\$ 1,500	1	\$ 1,500	\$ 1,500	NU	
ARIN Registry Services	1	1	\$ 2,250	\$ 2,250	1	\$ 2,250	\$ 2,250	NU	
Domain Registrations	1	1	\$ 369	\$ 369	1	\$ 369	\$ 369	NU	
Facility Rental - Grand Island College Park	1	1	\$ 16,000	\$ 16,000	1	\$ 16,000	\$ -	NU	
Great Plains Network (GPN) Membership & Network Program Fee	1	1	\$ 161,768	\$ 161,768	1	\$ 161,768	\$ -	NU	
Internet2 Community Anchor Program (CAP)	1	1	\$ 41,000	\$ 41,000	1	\$ 41,000	\$ 41,000	NU	
Internet2 R&E Network Member Fee	1	1	\$ 14,887	\$ 14,887	1	\$ 14,887	\$ -	NU	
Network Nebraska Toll-Free Number	1	1	\$ 433	\$ 433	1	\$ 433	\$ 433	NU	
Park Place Technologies Entuity Monitoring	1	1	\$ 8,489	\$ 8,489	1	\$ 8,489	\$ 8,489	NU	
Park Place Technologies Entuity Monitoring (Subsidy)	1	1	\$ 130,591	\$ 130,591	1	\$ 130,591	\$ -	NU	
Remote Router Terminal Server Cellular Data Service	7	12	\$ 20	\$ 1,680	1	\$ 1,680	\$ 240	NU	
SHLB Coalition Membership	1	1	\$ 2,500	\$ 2,500	1	\$ 2,500	\$ 2,500	OCIO	
The Quilt Affiliate Membership	1	1	\$ 2,900	\$ 2,900	1	\$ 2,900	\$ -	NU	
<b>Subscriptions Subtotal</b>							<b>\$ 91,203</b>		
<b>Staff Support -- University of Nebraska System</b>									
Network Engineering Services	1	1	\$ 244,800	\$ 244,800	1	\$ 244,800	\$ 244,800	NU	
Accounting Services	1	1	\$ 1,469	\$ 1,469	1	\$ 1,469	\$ 1,469	NU	
Administration & Management	0	0	\$ -	\$ -	1	\$ -	\$ -	NU	
Cyber Security Engineering Services	0	0	\$ -	\$ -	1	\$ -	\$ -	NU	
eduroam Support Services	1	1	\$ -	\$ -	1	\$ -	\$ -	NU	
Network Operations Center (NOC) Services	0	0	\$ -	\$ -	1	\$ -	\$ -	NU	



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
<b>Staff Support - UNS Subtotal</b>										\$	<b>255,644</b>	
<b>Staff Support -- Office of the CIO</b>												
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
GIS Support	1	1	\$	8,000	\$	8,000	1	\$	8,000	\$	8,000	OCIO
Travel/Vide Conferencing	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
<b>Staff Support - OCIO Subtotal</b>										\$	<b>43,330</b>	
<b>Staff Support -- Nebraska Dept of Ed</b>												
State E-rate Coordinator	1	4	\$	5,618	\$	22,470	1	\$	22,470	\$	22,470	NDE
Travel	1	1	\$	500	\$	500	1	\$	500	\$	500	NDE
<b>Staff Support - NDE Subtotal</b>										\$	<b>22,970</b>	
<b>Other:</b>												
Operating Expenses: SFP Modules, Patch Cables, Termination Tools	1	1	\$	7,500	\$	7,500	1	\$	7,500	\$	7,500	NU
Traffic Testing Equipment for 400G/100G backbone and endpoints	2	1	\$	65,000	\$	130,000	5	\$	27,343			NU
Traffic Testing Equipment for 100G backbone and endpoints	2	1	\$	25,000	\$	50,000	5	\$	10,517			NU
OmahaIX Setup Fee for upgrade	1	1	\$	1,400	\$	1,400	1	\$	1,400	\$	1,400	NU
<b>Other Subtotal</b>										\$	<b>8,900</b>	
<b>Total</b>										\$	<b>816,594</b>	
<b>Indirect Cost Allocation:</b>												
Indirect Cost Allocation (Interregional Transport Fee)	7%	1	\$	60,086	\$	4,206	1	\$	4,206	\$	4,206	OCIO
Indirect Cost Allocation (K-12 & H.E. Internet Access)	7%	1	\$	178,980	\$	12,529	1	\$	12,529	\$	12,529	OCIO
Indirect Cost Allocation (Participation Fee)	7%	1	\$	816,594	\$	57,162	1	\$	57,162	\$	57,162	OCIO
<b>Indirect Cost Allocation Subtotal</b>										\$	<b>73,896</b>	
<b>Total</b>										\$	<b>893,516</b>	
										NU	\$	747,795
										OCIO	\$	122,751
										NDE	\$	22,970

**TRADITIONAL COST MODEL**

Projected Units of Sale		292
Annual Cost Per Unit		\$ 3,060
Monthly Cost Per Unit	12 months	\$ 255.00
<b>Total Projected Revenue</b>		<b>\$ 893,516</b>

	A	B	C	D	E	F	G
1	<b>Network Nebraska Interregional Transport Fee FY 2023-24</b>				<b>Cost Recovery Period</b>		
2							
3	Date of Last Revision: March 3, 2023	Units	# of Payments Per Year	Price	Cost	Life Cycle	Annualized Cost
4							
5							
6							
7	<b>Backbone Transport Leased Lit Circuit Costs</b>						
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	Norfolk to Omaha, TBD (TBD)	1	12	\$ -	\$ -	1	\$ -
13							
14	Leased Lit Fiber Subtotal				\$83,006.40		\$ 83,006.40
15							
16	Admin Prog Officer II Costs (OCIO)	1	12	\$ 1,353.33	\$16,240.00	1	\$ 16,240.00
17							
18	Cost Center Total						\$ 99,246.40
19							
20	Projected Units of Sale						289
21							
22	<b>Dark Fiber Transport IRU Circuit Costs</b>						
23	Dark Fiber IRU: Lumen/Lincoln - Kansas City	1	1	\$ 99,494	\$ 99,494	1	\$ 99,494
24	Dark Fiber IRU: OPTK/Lincoln - Grand Island - Kearney	1	1	\$ 37,000	\$ 37,000	1	\$ 37,000
25	Dark Fiber IRU: Unite Private Networks (UPN)/Lincoln - Omaha	1	1	\$ 97,800	\$ 97,800	1	\$ 97,800
26	Dark Fiber IRU Subtotal						\$ 234,294
27							
28							
29	<b>FY 2023-24 E-RATE CALCULATIONS</b>				Total Units	K-12 Units	H.E. Units
30					289	267.75	21.5
31		3/28/2023	Cost Recovery Formula	Annual	Monthly	Total	
32	Total Funding Year pre-cost allocation amount	\$ 83,006.40	Higher Ed Contributions	\$ 287.22	\$ 23.93	\$ 6,175.22	
33	Total Annual Cost Allocation for Higher Education	\$ 6,175.22					
34	Total Funding Year pre-discount amount	\$ 76,831.18					
35	Total Funding Commitment Request (68%)	\$ 52,392.91	E-rate		\$ 16.31	\$ 52,392.91	
36			K-12 (post erate)		\$ 12.63	\$ 40,580.19	
37	Total Budgeted Amount allocated to resources not eligible for Erate	\$ 539,136.00	K-12 Contributions			\$ 92,973.10	
38	Total amount necessary for the applicant to pay the non-discount share	\$ 539,136.00	TOTAL			\$ 99,148.32	
39							
40	<b>INTERREGIONAL TRANSPORT FEE, 2007-PRESENT</b>						
41					Total		
42	Performance Year	K-12 Monthly	Higher Ed Monthly	# entities	Comments		
43	2007-08	\$ -	\$ -	94	(No backbone in service)		
44	2008-09	\$ 34.21	\$ 93.35	182	(State RFP 1752)		
45	2009-10	\$ 34.48	\$ 92.72	232			
46	2010-11	\$ 36.45	\$ 115.78	226	(1 entity, 1 fee structure)		
47	2011-12	\$ 31.69	\$ 101.09	246			
48	2012-13	\$ 18.67	\$ 61.28	252	(State RFPs 3827, 3886)		
49	2013-14	\$ 17.38	\$ 53.80	261			
50	2014-15	\$ 18.30	\$ 57.79	274	(State RFP 4582)		
51	2015-16	\$ 22.12	\$ 70.39	285	(ESU 3, 5, 6 Aggregations)		
52	2016-17	\$ 21.49	\$ 67.16	291			
53	2017-18	\$ 17.72	\$ 53.70	291	(State RFP 5562)		
54	2018-19	\$ 12.46	\$ 30.93	292	(including surcharge for Admin)		
55	2019-20	\$ 12.29	\$ 23.55	292	(including surcharge for Admin)		
56	2020-21	\$ 12.49	\$ 24.15	292	(including surcharge for Admin)		
57	2021-22	\$ 12.49	\$ 24.15	292	(including surcharge for Admin)		
58	2022-23	\$ 12.63	\$ 23.93	289	(including surcharge for Admin)		

2023-24 Statewide E-rate Internet											
	Education Entity	NN Aggregation Point	2023-24 Quantity (Mbps)	2023-24 Unit Cost POST-ERATE (\$/Mbps/month) PROJECTED COST	2023-24 Internet Monthly Total	2023-24 CPS Quantity (Mbps)	2023-24 CPS Unit Cost	2023-24 CPS Monthly Total	Combined Monthly Total	Total Annual Invoice Cost	Respondent
1	Brownell-Talbot School	Omaha	800	\$ 0.0800	\$ 64.00	800	\$ 0.0300	\$ 24.00	\$ 88.00	\$ 1,056.00	Ed Krueger cc: Shari Jensen
2	DHHS-Nebraska	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 (NANC)	Omaha	9,000	\$ 0.0800	\$ 720.00	9,000	\$ 0.0300	\$ 270.00	\$ 990.00	\$ 11,880.00	Andy Boell
4	Educational Service Unit 03	Omaha	20,000	\$ 0.0800	\$ 1,600.00	20,000	\$ 0.0300	\$ 600.00	\$ 2,200.00	\$ 26,400.00	Bill Pulte
5	Educational Service Unit 05 (SNDLC)	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)	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	Grand Island	2,500	\$ 0.0800	\$ 200.00	2,500	\$ 0.0300	\$ 75.00	\$ 275.00	\$ 3,300.00	Gary Needham
8	Educational Service Unit 10	Grand Island	5,500	\$ 0.0800	\$ 440.00	5,500	\$ 0.0300	\$ 165.00	\$ 605.00	\$ 7,260.00	Ron Cone
9	Educational Service Unit 11	Grand Island	1,500	\$ 0.0800	\$ 120.00	1,500	\$ 0.0300	\$ 45.00	\$ 165.00	\$ 1,980.00	Wade Gibson
10	Educational Service Unit 13	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	Grand Island	1,000	\$ 0.0800	\$ 80.00	1,000	\$ 0.0300	\$ 30.00	\$ 110.00	\$ 1,320.00	Scott Jones
12	Educational Service Unit 16	Grand Island	1,300	\$ 0.0800	\$ 104.00	1,300	\$ 0.0300	\$ 39.00	\$ 143.00	\$ 1,716.00	Scott Jones
13	Grand Island Public Library	Grand Island	300	\$ 0.0800	\$ 24.00	300	\$ 0.0300	\$ 9.00	\$ 33.00	\$ 396.00	Celine Swan
14	Columbus Public Schools	Lincoln	3,000	\$ 0.0800	\$ 240.00	3,000	\$ 0.0300	\$ 90.00	\$ 330.00	\$ 3,960.00	Leonard Kwapnioski
15	Lexington Public Schools	Grand Island	3,000	\$ 0.0800	\$ 240.00	3,000	\$ 0.0300	\$ 90.00	\$ 330.00	\$ 3,960.00	Mark Burson
16	Lincoln Catholic Diocese School System	Lincoln	750	\$ 0.0800	\$ 60.00	750	\$ 0.0300	\$ 22.50	\$ 82.50	\$ 990.00	cc: Chris Hobbs Jason Garrett
17	Lincoln Public Schools (ESU 18)	Lincoln	12,000	\$ 0.0800	\$ 960.00	12,000	\$ 0.0300	\$ 360.00	\$ 1,320.00	\$ 15,840.00	Tim Klein cc: Mackenzie Hahn
18	Omaha Public Library	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)	Omaha	15,000	\$ 0.0800	\$ 1,200.00	15,000	\$ 0.0300	\$ 450.00	\$ 1,650.00	\$ 19,800.00	Bobbi Gatrost
		<b>TOTAL</b>	<b>87,350</b>		<b>\$ 6,988.00</b>	<b>87,350</b>		<b>\$ 2,620.50</b>	<b>\$ 9,608.50</b>	<b>\$ 115,302.00</b>	
		Omaha	49,300		\$ 83,856.00			\$ 31,446.00	\$ 115,302.00		
		Lincoln	22,950								
		Grand Island	15,100								
		<b>2023-24</b>	<b>87,350</b>		\$ 83,856.00						
		2022-23	80,500		\$ 77,280.00						
		<b>% change</b>	<b>8.5%</b>		<b>8.5%</b>						

## Higher Education Internet

Higher Education Entity		2023-24 Quantity (Mbps)	2023-24 Unit Cost (projected)	2023-24 Internet Monthly Total	2023-24 Peering Quantity (Mbps)	2023-24 CPS Unit Cost	2023-24 CPS Monthly Total	Combined Monthly Total	Total Annual Invoice Cost	FY22-23 Validation/ Comments	
1	Central Community College	900	\$ 0.24	\$ 216.00	900	\$ 0.0300	\$ 27.00	\$ 243.00	\$ 2,916.00	Tom Peters	
2	Chadron State College	2,000	\$ 0.24	\$ 480.00	2,000	\$ 0.0300	\$ 60.00	\$ 540.00	\$ 6,480.00	Ann Burk	
3	City of Lincoln	3,000	\$ 0.24	\$ 720.00	3,000	\$ 0.0300	\$ 90.00	\$ 810.00	\$ 9,720.00	Craig Gifford	
4	Clarkson College	800	\$ 0.24	\$ 192.00	800	\$ 0.0300	\$ 24.00	\$ 216.00	\$ 2,592.00	Ryan Schurman	
5	College of St. Mary	1,000	\$ 0.24	\$ 240.00	1,000	\$ 0.0300	\$ 30.00	\$ 270.00	\$ 3,240.00	Kevin Sholl	
6	Creighton University	3,000	\$ 0.24	\$ 720.00	3,000	\$ 0.0300	\$ 90.00	\$ 810.00	\$ 9,720.00	Chris Vaverek	
7	Doane University	1,500	\$ 0.24	\$ 360.00	1,500	\$ 0.0300	\$ 45.00	\$ 405.00	\$ 4,860.00	Ryan Dorshorst	
8	Lincoln City Libraries	500	\$ 0.24	\$ 120.00	500	\$ 0.0300	\$ 15.00	\$ 135.00	\$ 1,620.00	Rod Cummings	
9	Little Priest Tribal College	200	\$ 0.24	\$ 48.00	200	\$ 0.0300	\$ 6.00	\$ 54.00	\$ 648.00	Morri Conway	
10	Metro Community College	2,048	\$ 0.24	\$ 491.52	2,048	\$ 0.0300	\$ 61.44	\$ 552.96	\$ 6,635.52	Seth Curtis	
11	Midland University	1,000	\$ 0.24	\$ 240.00	1,000	\$ 0.0300	\$ 30.00	\$ 270.00	\$ 3,240.00	Shane Perrien	
12	Mid-Plains Community College	900	\$ 0.24	\$ 216.00	900	\$ 0.0300	\$ 27.00	\$ 243.00	\$ 2,916.00	Trent Wiese	
13	Nebraska Indian Community College	500	\$ 0.24	\$ 120.00	500	\$ 0.0300	\$ 15.00	\$ 135.00	\$ 1,620.00	Justin Kocian	
14	Nebraska Game and Parks Commission	100	\$ 0.24	\$ 24.00	100	\$ 0.0300	\$ 3.00	\$ 27.00	\$ 324.00	Troy Kroeger	
15	Nebraska Wesleyan University	1,750	\$ 0.24	\$ 420.00	1,750	\$ 0.0300	\$ 52.50	\$ 472.50	\$ 5,670.00	Steve Dow	
16	Northeast Community College	300	\$ 0.24	\$ 72.00	300	\$ 0.0300	\$ 9.00	\$ 81.00	\$ 972.00	Field May	
17	Peru State College	750	\$ 0.24	\$ 180.00	750	\$ 0.0300	\$ 22.50	\$ 202.50	\$ 2,430.00	Gene Beardslee	
18	Southeast Community College	2,000	\$ 0.24	\$ 480.00	2,000	\$ 0.0300	\$ 60.00	\$ 540.00	\$ 6,480.00	Edward Koster	
19	Union College	800	\$ 0.24	\$ 192.00	800	\$ 0.0300	\$ 24.00	\$ 216.00	\$ 2,592.00	Richard Henriques	
20	University of Nebraska	200	\$ 0.24	\$ 48.00				\$ 54.00	\$ 648.00	Greg Gray	
21	UNMC/Nebraska Medicine	5,000	\$ 0.24	\$ 1,200.00				\$ 1,200.00	\$ 14,400.00	Steve Busby	
22	Wayne State College	2,500	\$ 0.24	\$ 600.00	2,500	\$ 0.0300	\$ 75.00	\$ 675.00	\$ 8,100.00	Nick Muir	
23	Western Nebraska Community College	1,000	\$ 0.24	\$ 240.00	1,000	\$ 0.0300	\$ 30.00	\$ 270.00	\$ 3,240.00	Loren Moench	
TOTALS		31,748		\$ 7,619.52	26,748		\$ 802.44	\$ 8,421.96	\$ 101,063.52		
				\$91,434.24				\$9,629.28	\$101,063.52		
				29,348							
				8.2%							
				\$84,522.24							
				8.2%							