

Internet2 Commercial Peering Service (CPS*)—a Network Nebraska Evaluation

What is CPS? The Internet2 Commercial Peering Service (CPS) is a separate Layer-3 IP routing service provided over the Internet2 IP Backbone. The Commercial Peering Service provides Internet2 Connectors with connectivity to over 60,000 commercial networks, such as Content Providers and ISPs, through the establishment of Settlement-Free Interconnects between these networks and Internet2's Commercial Peering Service. By turning on the CPS service to the Great Plains Network Connector in Kansas City, Network Nebraska could see a 30-40% drop in their Commodity Internet bandwidth and faster outbound and inbound traffic over the Internet2 network.

How much does CPS cost? CPS is “free” to Internet2 Connectors (i.e. Great Plains Network) but there is a cost back to the GPN-affiliated institutions. Estimated one-time costs to Network Nebraska would be \$30,000 for interface cards to upgrade to a 10Gb capacity, and ongoing costs of \$1,000/year for maintenance, and \$.25/Mbps/month for the actual service (e.g. 3000Mbps x \$.25/Mbps/month = \$750/month).

Is CPS E-rate eligible? No, CPS is not E-rate eligible. CPS would occur as costs on top of Network Nebraska’s commodity Internet purchase.

Is CPS a “one-time offer”? No, but if Network Nebraska wants to reserve bandwidth for 2014-15 when it is really going to be needed, NOW is the time to make the investment, needing a decision by May 8.

How would Network Nebraska recover its costs? This is up for discussion since Network Nebraska has three cost-recovery mechanisms available for billing: **Participation Fee** to 259 entities, **Interregional Transport Fee** to 259 entities, and a variable **Statewide Internet Access** charge to about 30 K-20 purchasing entities throughout the State. One recommendation would be to recover the \$30,000 through the Participation Fee or the Interregional Transport Fee in 2013-14 (+\$9.52/month/entity) and the \$750/month for 3Gbps of CPS proportionally through the statewide Internet purchases (+~\$.07/Mbps/month). [E.g. 1000Mbps x \$.07/Mbps/month = \$70.00/month]

How will Network Nebraska arrive at a decision? This Evaluation document is being shared digitally with the members of the ESU-NOC, higher ed CIOs, CAP, NNAG, UNCSN, and the CIO’s office. Input from all entities will enable the Collaborative Aggregation Partnership to make a decision on the CPS service at their Wednesday, May 8 meeting. If Network Nebraska decides to purchase and activate CPS for 2013-14, this is entirely conditional on the negotiations between UNL and the Great Plains Network.

Cost Recovery Proposal:

| Fund Account | 2013-14 w/o CPS | 2013-14 w/CPS (estimated) |
|-------------------------|-----------------------|-------------------------------------|
| Participation Fee | \$203.48/month/entity | ~\$213.00**/month/entity |
| Statewide Internet-K12 | \$.7750/Mbps/month | \$.8450/Mbps/month (+ \$.07/Mbps) |
| Statewide Internet H.E. | \$2.50/Mbps/month | \$ 2.57/Mbps/month (+ \$.07/Mbps) |

** NOTE—Rather than increase the Participation Fee by \$9.52/month/entity, the Office of the CIO could absorb the \$30,000 using the Participation Fee equipment escrow line item and reduce the overall projected escrow by \$30K.

| Internet Cost Examples | 2013-14 w/o CPS | 2013-14 w/CPS |
|------------------------|------------------|------------------|
| NNNC (1,860Mbps) | \$1,441.50/month | \$1,571.70/month |
| LPS, OPS (1,000Mbps) | \$ 775.00/month | \$ 845.00/month |
| ESU 5 (600Mbps) | \$ 465.00/month | \$ 507.00/month |

*CPS is also referred to as *Commodity Peering Service* or *Content Peering Service*, depending on the network.