

POTENTIAL NEXT GENERATION INFRASTRUCTURE SERVICE MODELS

The Research and Education networking community is being asked to address several issues facing all of us with the implementation of the Next Generation Infrastructure. These include:

- Expanding capacity offered to regionals, including removal of Cloud Exchange (formerly TR-CPS) utilization caps, introduction of private cloud access, and expansion of the capacity for research;
- Emerging research-support opportunities like implementation of infrastructure and programs for a national research platform;
- Introduction of automation, self-service tools, and API's, all to enable the sharing of community infrastructure and ease-of-use for users of end to end services; and
- Delivery of these features and improvements with the goal to lower total cost to operate the network for the services that it delivers.

We feel that now is a good time to consider new Service Models for delivering current services and new services that support the key themes of flexibility, programmability and agility. The Service Models endeavor to move us away from our seven-year-old port-based model, to a platform that has the ability to meet the requirements our members told us they need to be successful.

Each of the models is built on the assumption that the connector community will agree to make investments similar to those they make today for Internet2 services, and that Internet2 will provide more value and new functionality responsive to recent requirements articulated by the community for that investment.

Model 1: Provide more capacity for the current services at current fees (More for your Money)

Continue to offer current model & offering additional service capacity. For example, offer 2x 100G service capacity for the cost of 1x100G today and 4x 100G service capacity for the cost of 2x100G today. We could include in this offering 100G services for Cloud Exchange (formerly TR-CPS) and 10G service to Cloud Connect.

Model 2: Base Connector Fee with smaller Services Fees

This model recognizes the common contributions necessary to sustain a high quality, reliable set of national services not so much through service based fees, but through a standardized per-connector fee. This model covers most of the base costs for Internet2 network operations through these base fees and then recovers the remainder through service fees. This approach would make operations more consistent and less subject to questions about who does and who does not participate in various services.

DRAFT for discussion with Principals

One way to implement this model might be to determine a higher Network Membership fee that would provide some level of base service. Then a smaller fee would be charged for the individual incremental services.

Model 3: Service Menu model

In this model, Connectors would receive a credit equal to the amount they currently pay in fees for standard services to be used to procure any connectivity service that is available through the Internet2 Network Services (NS) Service Catalog at the listed fees.

Connectors could purchase anything in the Service Catalog with a value up to their current subscription fee (e.g., Connector A procures= \$400K in AL2/3S Services today, so they could obtain up to \$400K of any of the re-priced services from across the entire catalog). Additional services, beyond the current investment, would also be available.

Additional Considerations

- **Service Menu Pricing:** we may also want to consider the way we determine the fees for the items in the services being offered. We should consider that the fees that a Connector would pay for services may be lower than fees that we would charge other members, such as government agencies or industry members. Such a model would recognize the investment commitment that the Connectors have made and provide room for Connectors and Network Members to offer these services to their members and recover any costs they may incur.
- **Community Anchor Program (CAP) Fees:** we would also like to have a conversation with connectors and network members about whether they would like to include the revenue paid in current CAP fees as part of the revenue neutral calculation. We would still need to collect for CAP fees that are needed for the programmatic portion of the CAP program separately.