



## **Southern Crossroads (SoX) Services**

### **Introduction**

The Southern Crossroads (SoX) is a cooperative initiative doing business under the Southern Light Rail, Inc. (SLR). The initial support for the development of the SoX inter-networking aggregation facility was provided by National Science Foundation Grant awards to several of the members.

We are designed to facilitate access to current and future highly integrated, digital communication services for education, research, and economic development within the region and across the United States.

The SoX enables a highly functional, reliable communications system with the ability to integrate high performance voice, data, and video services in a competitive multi-vendor environment at reasonable cost.

Our mission is to connect both SoX Participants to Next Generation Internet services, as well as commodity services where appropriate, thus enhancing opportunities for collaboration among university researchers at institutions throughout the Southeast in a very cost effective manner.

SoX continues to explore opportunities within our community to facilitate and enhance collaboration among university educators and researchers at different institutions throughout the Southeast.

Ongoing and planned future developments include, but are not limited to:

- Provide opportunities for industrial participation and partnering to develop new national economic models for advanced, integrated services, such as the QUILT, USA Waves, and the National Lambda Rail initiatives and;
- Continued support of high bandwidth connectivity to link researchers with increased capabilities via higher bandwidth links to campuses at reduced pricing via partnerships with vendors such as Qwest, Cogent, and Sprint;
- Provide access to other resources, such as the Department of Energy's ESnet, the Oak Ridge National Lab (ORNL), national research and education backbone networks, and commodity Internet Service Providers (ISPs), and a National TransitRail peering connection;
- Promote research of high bandwidth networks and their operation;
- Build communities of interest through workshops and other information dissemination means;
- Enable non-SLR member institutions K-20 schools and others to achieve connectivity by sponsoring state run SEGP network organizations such as the Georgia Board of Regents (PeachNet), University of Kentucky, South Carolina SCINET and the Alabama Supercomputing Authority (ASA);

## Exhibit B

- Ensure that potential partnerships and projects involving Federal Agencies and other nationally supported activities utilizing SoX are encouraged and facilitated such as the QUILT, the National Lambda Rail, the Imperial College of London and the Georgia BioRing initiatives.

### **High Performance Education and Research Network Connectivity**

A unique opportunity is presented to us through aggregation of our common needs to more effectively support networking of research institutions, maintain connectivity and enhance our community effort, while leveraging our experiences and service models. Our focus remains to provide enabling research connectivity and to continue our history of community interaction. This allows continued competition on an international scale.

The continuation of aggregations, such as SoX and the Quilt consortia, with costs shared equally among participants, coupled with adjustments according to numbers engaged, cost offsets, market rates and grants factored into the overall expense, serve to make this opportunity a reality. This initiative represents a viable methodology by which we can reduce expense, expand services and enhance performance for all participants.

- SoX connectivity includes national and regional education and research peering as well as settlement-free commercial peering. SoX provides connectivity to high performance educational and research networks including the Abilene and PacketNet networks unitizing the facilities of SoX to the Participants in accordance with the Abilene and PacketNet Agreements. Participant charges are not based on bandwidth of the connection, incentivizing members to maximize their connection bandwidth, enabling research into high-speed applications.
- SoX provides network monitoring, network engineering and technical support services. SoX operations and monitoring looks one hop onto participant's networks to make sure that all services are delivered to the participant. In the event of an outage indicated by HP Openview, the operations group will notify SoX engineers and the participant's point of contact.

### **SoX Commodity Internet Services (ISP Services)**

SoX participants early on expressed a desire to identify alternatives for offsetting the high costs of wide area links from their institution to SoX. One service that many campuses requested was aggressively discounted commodity Internet services. Provision of these services through the SoX link has allowed the redirection of savings to offset the wide area link.

To date, we have contracted with service providers as a result of leveraging the SoX community for better service, at better rates. Through a relationship between SLR/SoX and Cogent, Sprint and/or Qwest, SoX participants will have a choice of access to the commodity Internet via the SoX GigaPoP link to Cogent, Qwest and/or Sprint.

**Qwest** – A Tier 1 commodity Internet service provider, providing SoX members with an opportunity to connect to SoX, plus gain ISP access at rates lower than current market prices. Qwest offers discounted back haul costs from any SoX members' nearest local Qwest Pop to SoX, for those members purchasing Qwest ISP service.

**Cogent** - Provides SoX members the opportunity to secure ISP services at a much lower price via GigE "Retail" connections. This will allow those SoX customers utilizing this service to continue

## **Exhibit B**

to receive what has proven to be a “rock solid” service over the last several years from NetRail, at reduced prices.

**Sprint** – Provides SoX members the opportunity to secure ISP services at a much lower price via Full-GigE Flat Rate connections and Burstable Rate connections. Sprint may offer discounted back haul costs from any SoX members’ nearest local Sprint Pop to SoX, for those members purchasing Sprint ISP service.

### **SoX Responsibilities:**

SLR has entered into a contractual agreement with Cogent, Qwest and Sprint for provision of bulk ISP services.

SoX will enter into individual agreements with Participant institutions as requested.

SoX Financial Manager will invoice institutions annually on a Fiscal Year schedule (July 1<sup>st</sup> – June 30<sup>th</sup> operating year).

SoX Business Manager will assist Participants with service provisioning.

SoX Chief Engineer will assist in establishment of layer 2 connectivity to provider.

SoX Chief Engineer will assist in problem resolution.

The SoX Business Manager will advise the Steering Committee when actual subscription and projected demand cause available bandwidth to be subscribed at 75 percent of capacity. The Business Manager will recommend to the Steering Committee vendor, bandwidth, provisioning lead-time and service cost for expansion. Recommendation will include discussion of exposure (amount and time) plan to meet costs and suggested method of financing if necessary. Use of unsubscribed bandwidth is at the discretion of the Steering Committee with recommendation of the Business Manager.

### **Participant Responsibilities:**

Participating universities will execute an agreement with SLR/SoX for Cogent, Sprint and/or Qwest connectivity.

Participants will coordinate with the SoX Business Manager for service provisioning.

Program Participants will adhere to acceptable use policies in place at their institutions.

## **CONTACT INFORMATION**

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### Technical Team

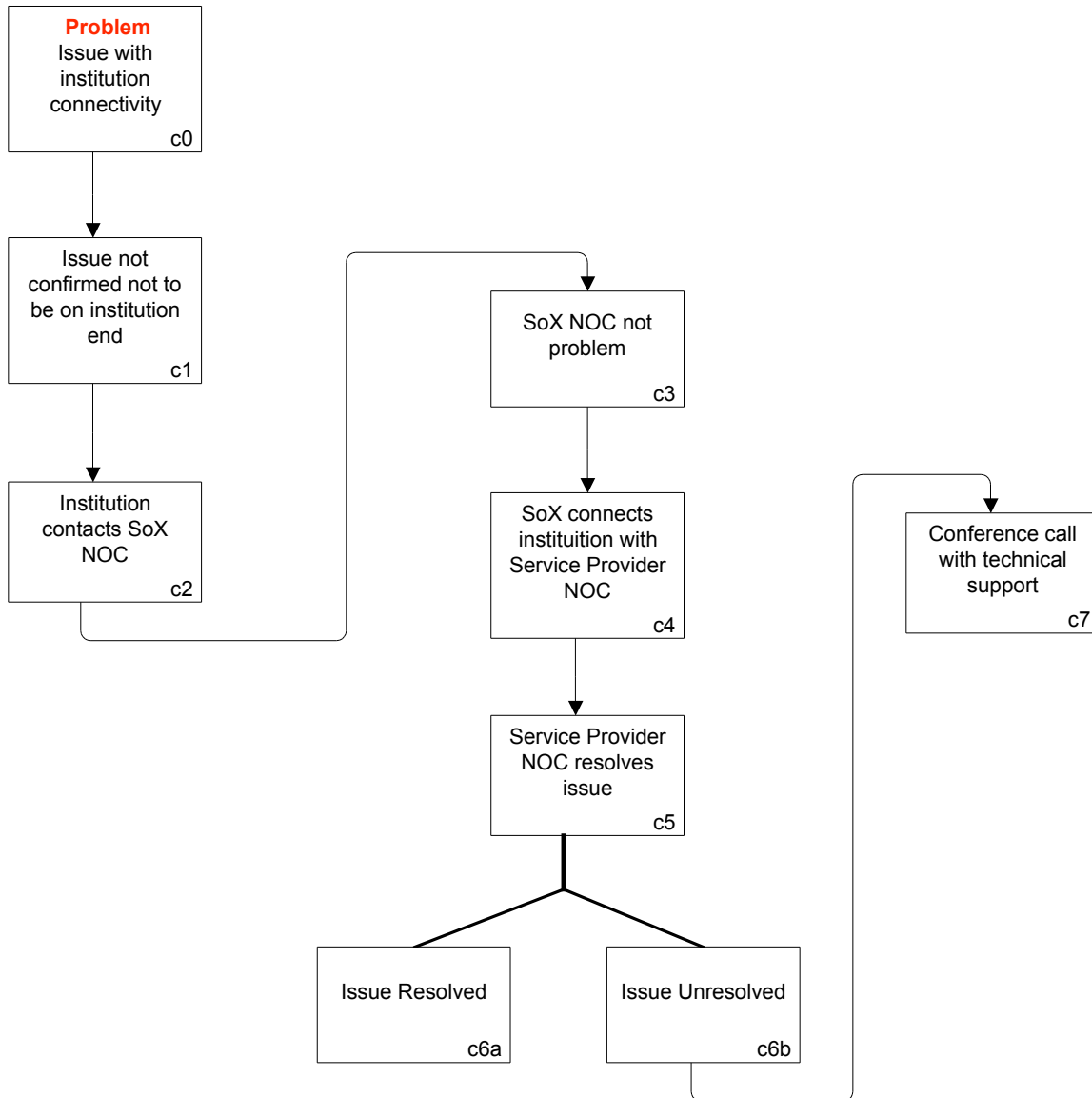
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Enclosure 1

**SERVICE LEVEL PROCESS**



**NOTE:** Additional escalation procedures will be delineated in specific service level agreements