

## **GPN Strategic Plan**

### **Vision**

The Great Plains Network develops and maintains a high-performance network that meets the needs of the membership's research community; is a resource for cyberinfrastructure to the membership; and supports multi-institutional, multi-disciplinary research and education initiatives that require advanced cyberinfrastructure.

### **Mission**

To support the research and education missions of our members through the use of advanced cyberinfrastructure.

*The term "cyberinfrastructure" describes the new research environments that support advanced data acquisition, data storage, data management, data integration, data mining, data visualization and other computing and information processing services over the Internet. In scientific usage, cyberinfrastructure is a technological solution to the problem of efficiently connecting data, computers, and people with the goal of enabling derivation of novel scientific theories and knowledge. (Source: Wikipedia; See also The Atkins Report at <http://www.nsf.gov/od/oci/reports/toc.jsp>)*

### **Strategic Direction 1: GPN will provide leadership in advanced networking at the regional and national level on behalf of the membership**

Goal 1.1: Operate a cost-effective network Point of Presence (POP) in Kansas City, providing regional and national connectivity to GPN members.

*The Great Plains Network is in a unique position with respect to regional and national high performance networking. Every major carrier has a regional network hub in Kansas City. Current and future national research networks will also have a major point of presence in Kansas City. GPN physically connects more states and research institutions to national research networks than any other connector. GPN will remain the primary connector of choice for its members and partner with other regional networks for the benefit of our collective membership.*

Objective 1.1.1: Provide connectivity to national high performance research and education networks with the capacity, reliability and services needed to support the requirements of the GPN members.

Objective 1.1.2: Take advantage of opportunities to create partnerships and to interconnect with other regional next-generation network(s).

Objective 1.1.3: Regularly assess innovations in advanced-network applications and services for prioritization and deployment.

Objective 1.1.4: Perform periodic reviews and update of network engineering, operations and support, including NOC performance objectives and evaluation procedures.

Goal 1.2: Facilitate the sharing of resources and expertise among members in support of their deployment of robust, cost effective, state-of-the-art networks.

*Member institutions are continually pressed to deliver more bandwidth, more network-centric applications and services while at the same time containing costs. The Great*

*Plains Network will play a significant role in facilitating sharing of resources and expertise by and among the organizations that provide campus network services that provide the capacity, reliability and services needed by their research community.*

Objective 1.2.1: Encourage and facilitate experimentation and campus adoption of advanced technologies (e.g., IPv6).

Objective 1.2.2: Offer periodic workshops on advanced technologies to advance the knowledge and capabilities of member technical staff.

Objective 1.2.3 Identify resources and expertise available to members to assist in local networking projects.

Goal 1.3: Provide leadership in advanced networking at the regional, national and international levels on behalf of the membership.

*GPN must maintain a significant presence at the regional and national level in order to fulfill its mission and represent its membership in the increasing complex national networking environment.*

Objective 1.3.1: Identify and publicize exemplar uses of advance network technology by the membership.

Objective 1.3.2: Lead the discussion among GPN members with respect to issues raised in national networking forums, e.g. the Quilt, Internet2, to both inform our members and to establish GPN's position on these issues.

Objective 1.3.3: Participate in and take leadership roles in activities of selected advance networking organizations (regional, national and international).

**Strategic Direction 2: Actively support the development of and provide support to research and education initiatives among the membership that extend or use cyberinfrastructure in novel or unique ways.**

Goal 2.1: Enable members to expand the number of sustainable GPN cyberinfrastructure-related research initiatives.

*To effectively encourage and support the cyberinfrastructure agenda of Great Plains Network member institutions, it is useful to identify trends as early as possible, participate in workshops leading to advanced cyberinfrastructure development and deployment, identify and promote program solicitations by funding agencies, and facilitate working relationships with relevant experts among the GPN constituency.*

Objective 2.1.1: Identify and promote promising areas for CI and research collaboration among members.

Objective 2.1.2: Identify leaders/champions and facilitate collaborative planning activities such as workshops and conferences that show promise to lead to coordinated and sustainable efforts.

Objective 2.1.3: Facilitate, where appropriate, the involvement of corporate affiliates with members.

Objective 2.1.4: Partner with and support other regional organizations (e.g., MCBIOS) that create a potential for broader collaboration and expand involvement in GPN related cyberinfrastructure activities.

Objective 2.1.5: Position GPN as a partner and/or provider in the projects creating the future Internet (GENI, etc.).

Goal 2.2: Maintain vigorous partnership, outreach, and advocacy programs to jointly develop, promote, and share the benefits of cyberinfrastructure within the greater GPN community.

*As research becomes more sophisticated, the techniques needed to do the research become more sophisticated, costly and, to some extent, rare. GPN members have different levels of expertise and different cyber-enabled resource pools. GPN is in a unique position to facilitate sharing of research expertise and sharing of resources.*

Objective 2.2.1: Facilitate GPN member institutions in developing a regional CI plan for sharing resources and expertise.

Objective 2.2.2: Create and maintain partnerships among faculty and staff from member institutions to effectively advocate and promote CI for specific purposes among the broader GPN community (e.g., the collaborative CI group, the networking research group, the bioinformatics group).

Objective 2.2.3: Facilitate, as appropriate, shared access to GPN member resources and GPN owned resources.

Objective 2.2.4: Investigate and expand the use of key middleware components for authorization and authentication (e.g., Shibboleth, Globus) within the membership.