



Position paper

Transitioning the I-Light network to Indiana and Purdue Universities

BACKGROUND

The I-Light project was assigned to Indiana University and Purdue University in late 2005 by Governor Mitch Daniels. Early in the second quarter of 2006, a transition task force—created by the IHETS Board of Directors¹—was charged with developing a plan for transitioning the existing network.

The team's primary responsibility was to create a plan that would as seamlessly as possible move network operations to I-Light and develop an equitable governance structure that would oversee, direct, and approve I-Light operations.

Aside from coordinating the transitioning of staff and associated resources, among the many concerns before the task force was possible conflict and inefficiency in the creation of a separate governing body to oversee I-Light operations separate from the IHETS consortium. After several weeks of discussion, study, and deliberation, the group agreed on a resolution that confirmed the need to transition network operations from IHETS to the I-Light project and expressed that governance would remain under the auspices of the IHETS Board. The Board approved the resolution on October 16, 2006 [see attachment].

IMPLICATIONS FOR IHETS CONSORTIUM MEMBERS

For nearly 15 years, IHETS operated a circuit-based advanced data communications network for the consortium, its members, and their affiliated partners. This fully managed network included nearly 24 x 7 field, repair, and Help Desk technical support, as well as on-site engineering and consulting services.

During this period, IHETS provided a circuit support fund for those consortium members (public and private higher education institutions) directly connected to the network from

¹ The IHETS board is comprised of members representing Indiana University, Purdue University, the Independent Colleges of Indiana, Ball State University, Indiana State University, Ivy Tech State College, Vincennes University, University of Southern Indiana, INCOLSA, Indiana Department of Education, and Indiana Public Broadcasting Stations, each of which have a vested interest in I-Light development, completion, connections, and other issues.

its state appropriation. Plans are for IHETS to continue this circuit support fund pending the outcome of its state appropriations request.

In addition, IHETS was also actively engaged in the planning, development, installation, and deployment involved in expanding the original I-Light backbone to 15 strategic locations throughout the state during the administrations of Governors O'Bannon and Kernan.

With the subsequent assignment of the I-Light network to Indiana and Purdue universities by Governor Daniels, the transition team determined that operating two separate networks—i.e., the new fiber-based I-Light network and the older circuit-based network upon which many independent colleges, Ivy Tech branches and the Purdue county extension services rely for their Internet connectivity was not feasible. To operate separate networks would diminish the goal of achieving economies of scale and scope from a single network.

As a result, the IHETS Board of Directors' transition team began exploring the feasibility of merging the circuit-based network with Indiana University's Global Research Network Operations Center (GRNOC). This merger capitalizes on the tacit knowledge and experience acquired by IHETS over the years while leveraging the expertise Indiana University has in engineering and management of optical networks.

This transfer will result in:

1. A new and dedicated I-Light unit, with new senior management but staffed with many of the people who were previously involved in these functions within IHETS, and
2. A new Help (service) Desk informed by and facilitated from within IU's GRNOC,

▪ *What role will IHETS fill?*

The IHETS consortium, through its Board of Directors, will play an important role in the operation of I-Light. In adopting this resolution, the Board remains responsible for the overall strategic governance of I-Light on behalf of all public and independent educational institutions. The Board will rely upon existing IHETS technical operations and applications and finance committees to provide input and advice related to I-Light operation and direction. Indeed, these two IHETS operating committees will play a critical role in ensuring the needs of all consortium members are considered and met by the I-Light network.

▪ *What type of network capacity will be available?*

The I-Light backbone will be capable of serving multi-gigabit connections. Compared to the circuit-based network, the available capacity will greatly exceed that which is

available by circuit. Connectivity to I-Light will also provide high-speed connections to the Internet 2 backbone. Circuit-based network connections will be limited by the size of the circuit.

Both networks, however, will coexist and provide access to the same resources and be managed by the same engineers. As I-Light and the needs of consortium members expand, evolve, and change over time, the I-Light network will have the flexibility to meet and exceed the needs of consortium members.

- *What network services and support will be available?*

IHETS will work closely with Indiana University to ensure a seamless transition of network operations. The transition process will be clearly and frequently communicated to consortium members, with ample opportunities to provide input along the way. Several IHETS staff will move to Indiana University network services area and will continue to focus on providing technical support and engineering services to all consortium members in Indiana's higher education community. And, like the IHETS Help Desk, IU's GRNOC will provide the same level of network support and services on which consortium members rely and have come to expect.

- *Other technical issues?*

As networking operations are moved to Indiana University, IHETS will renew its focus on offering critical technology services to enhance teaching, learning, collaboration, improved access, and increased community outreach capabilities for all consortium members, public and independent.

IHETS' ten-gigabit connection will be the gateway to all services currently offered to consortium members, including video, audio, and Web conferencing as well as SUVON and Webcasting (streaming). In addition, IHETS will work with its board, technical operating, e-learning, finance, and other operating committees to solicit your input as we develop best-of-breed technology services that can be used to further the visions and missions of every consortium member.