Internet Society 2003 Program Review

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Introduction

ISOC has a long and successful track record as an enabler of sustainable initiatives in support of the open development, evolution and use of the Internet for the benefit of people everywhere.

Programs and related projects in the areas of Standards, Internet Policy and Education have contributed greatly to increasing technical competence as well as awareness of technical and social issues concerning the Internet.

A major source of program funding for many of ISOC's initiatives is the Public Interest Registry (PIR). PIR, through its ISOC roots, has the benefit of long-established and well-recognized mechanisms in place for responding to and supporting noncommercial Internet users.

PIR contributes to, supports, and enhances ISOC's mission and programs by allocating surpluses generated by .ORG domain registration revenues to the sponsorship of ISOC-managed programs in line with the following common purposes of ISOC and PIR:

- To facilitate and support the continuing evolution of the Internet as a research, education and communication infrastructure, and to stimulate the involvement of the non-profit community, and others, in the continuing growth and evolution of the Internet
- To educate the non-profit community and the public at large about technology and the Internet, and to encourage others to do the same
- To stimulate and facilitate effective use of the Internet by non-profit organizations and others

In the area of Internet policy, .ORG support enables ISOC to develop and promote programs and communication activities in support of an open Internet.

In the area of Education, .ORG support has made possible initiatives such as the ISOC Workshop Resource Centre and regional network training workshops in all parts of the world. These workshops help to strengthen the technical expertise of local network operators who need to design and manage larger networks as the demand for connectivity in their regions increases. Furthermore, workshops such as these have helped transfer technology and knowledge to developing regions in a move that is making them self-sufficient in their support of their local Internet infrastructure.

An overview of the programs and projects supported by .ORG revenues is provided on the following pages.

All these activities are examples of how ISOC supports public interest programs with the proceeds of .ORG domain name revenues generated by PIR.

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I - Workshop Resource Centre

ISOC Workshop Resource Centre

During 2003, ISOC together with NSRC developed the ISOC Workshop Resource Centre as a centralized service to collect resources related to Internet Networking workshops and make them publicly available via a dedicated web site. Content includes technical training material on network design and deployment as well as planning tools to help workshop organizers develop and hold local events. The ultimate goal is for content development to become self-sustaining and for site users to form a support network that would support emerging training needs around the globe.   The site was launched early in 2004. More information on this effort is available in the 2004 report.

More info: **http://ws.edu.isoc.org**

II – Regional Workshops and Activities

Network Training Programs

ISOC's Network Training Workshops enable knowledge transfer to local technicians and policy makers. Many of those that attended these workshops have gone on to help build the Internet infrastructure in their countries. Workshop graduates have also used their newly acquired skills to train those responsible for running and maintaining this infrastructure. And in the true spirit of the Internet Society, some have also worked to bring together those with an interest in developing the potential of the Internet, enabling local users, operators and policy makers to play an active role in the broader Internet community. During 2003, ISOC supported regional activities in Africa (AfNOG), Asia (AIT) and Latin America (WALC). Details of selected workshops are below.

These workshops are supported by the Workshop Resource Centre, a portal that provides a repository for sharing network training materials as well as a range of planning tools and information for trainers on how to set up and organize workshops. It also provides access to a directory of trainers and their competences and encourages interaction between members of the training community.

The Internet Society Workshop Resource Centre is one of the many education initiatives supported by the Internet Society and the Public Interest Registry.

AfNOG 2003

 43 participants from 18 different African countries attended the five-day training workshop held in Kampala, Uganda, June 8-13, 2003, and 84 attended the subsequent AfNOG and AfriNIC meetings.

The workshops were based on past successful AfNOG and INET training workshops with both English and French sessions covering the same material with equivalent depth and scope in three tracks. This achieved the goal of eliminating the effects of language

barriers in technical expertise. AfNOG 2003 also saw the introduction of a new workshop on ccTLD distributed operations workshop.

This workshop built upon the experiences of the previous AfNOG workshops held in Cape Town, Accra, Lome and the INET workshops held during 1993-2000 at eight locations around the world.

The goals of the workshop were:

1. To train a critical mass of trainers and professionals in network infrastructure and services to be able to support an extension of Internet-related activities within the African countries represented.

2. To identify and share individual and institutional contacts as well as information sources that will assist the process of national development, using international Internet connections.

3. To build robust professional linkages between all participants in the programs so that the mentor-student and colleague-colleague relationships formed during the workshop and conferences will remain strong and of continuing usefulness well beyond the workshop and conference.

4. To increase the level of co-operation among existing projects and activities for establishing public data networks in Africa.

5. To train people and groups of people who will return to their country and region and who will teach others what they have learned at the workshop.

The workshop included two instructional tracks:

Track 1. Scalable Internet Services

This track was intended for technical staff that provides mail, file, web, and other TCP/IP based services to local and/or dial-up end users. Subjects covered included large-scale provision of UNIX-based TCP/IP services such as DNS (Domain Name Service) , SMTP mail exchange, POP mail delivery, Mailing lists, HTTP web service and Security.

Track 2. Scalable Network Infrastructure

This track was intended for technical staff operating a wide area TCP/IP network with international and/or multi-provider connectivity.

It supported those involved in the establishment and/or operation of a basic national network infrastructure in the country. Subjects: covered included the configuration and operation of larger scale backbones, including: Basic routing, OSPF routing, BGP routing (limited), Management of router configuration, NOC (Network Operation Center), Exchange points between networks and Security.

Track 2 was presented in both English and in French.

More info: http://www.afnog.org/2003/2003.html

WALC 2003

185 participants from 16 countries attended the 6th Latin American and Caribbean Networking Technologies Workshop was held in Mérida, Venezuela, October 20-24, 2003. It was jointly organized by the Latin-American Networking School Foundation (ESLARED) in conjunction with the Universidad de Los Andes (ULA), National Center on Information

Technology in Venezuela (CNTI), the Latin American and the Caribbean Forum of Networks (ENRED) and the Internet Society (ISOC). Six concurrent conference tracks focused on:

- *Networking Technologies.* Providing participants with the tools and techniques required to design, build, maintain and upgrade computer networks connected to the Internet. The content included: Basic IP Routing, NIS, DNS, LDAP, Virtual Private Networks, Network Security Basics, Comparison of Transmission, Technologies. The first Mile, Structured Cabling, Wireless Data Transmission. Satellite Transmission, WAN and MAN Technologies, IP Telephony.

- *Information Services in Internet, Extranets and Intranets.* Presented participants with a current and technically advanced view of the state of the art on the implementation of information services on the Internet. Content included: TCP/IP, Technological Trends regarding WEB services, Standards Evolution, Review of HTML, Desired features of a high quality service, Web Server Configuration, Secure Transactions, Configuration of Web Servers for Commercial Transactions, CGI Programming, Java Technology Fundamentals, Servlets, JDBC, Web based Database Access.

- *Content Development in Latin America.* The goal of this track was to assist the content developers in the region with the required tools to offer high quality materials in Spanish. The workshop addressed the needs of journalists, communicators, librarians, documentalists and other professionals who develop contents for the Internet or coordinate teams devoted to this task.

- *Advanced Routing Techniques.* Trained participants to install and maintain routers that guarantee high performance in nation wide computer networks. Content included: Leveling, Route exchange (Peering Vs Transit), BGP, IP Multicast, IP Telephony, QoS, IPv6, NAT.

- *e-Learning.* This track covered the techniques to be mastered for the effective organization and development of on-line teaching instruments using ICT. Both the technological and pedagogical viewpoints were considered. Content included: e-learning technological platforms, Learning Management Systems, Overview of Existing tools, New Open Source Tools, Instructional Technology, Instructional Design, Methodology and Objects of Learning

- *Network Security.* Provided a review of the theoretical and practical security fundamentals for distributed systems, with emphasis on experimental techniques to secure, monitor and maintain an information system protected from security threats. Content included: Introduction to computer networks security, Fundamentamental Concepts: Authentication, Integrity, Confidentiality, Availability, Security Policy Design: ISO 17799, Introduction to Cryptography, Substitution and Transposition.

More info: **http://www.walc03.ula.ve**

AIT Multicast Workshop

Held by the Asian Institute of Technology in Pathumtani, Thailand (18–20 May 2003), this workshop aimed at training engineers from education and research networks in the Asia/Pacific region to enable streaming of educational contents through the regional academic networks. Funding was provided for the Network Startup Resource Centre (NSRC) to pay costs associated with shipping routing equipment to a multicast workshop at the Internetworking Research

Laboratory of the Asian Institute of Technology. Workshop participants were network engineers from education and research networks in the Asia-Pacific region. Students learned to engineer multicast into their networks and successfully facilitated multicast throughout the Thai research network. The curriculum was modeled on a multicast workshop taught at the University of Oregon for the Internet2 community in June 2002.

More info: **http://irl.cs.ait.ac.th/multicast_workshop.html**

Small Grants Programs

ISOC provided some initial support to Small Grants Programs in Asia (Pan Asia program) and Latin America (Frida program) in order to prepare the selection process and funding of winners of 2004 grants. The Small Grants Programs help fund local and regional initiatives that provide innovative networking solutions to specific development issues. ISOC's support has put it on equal partnership status with all other partners of the programs. Additional information is available in the 2004 report.

More info: **http://web.idrc.ca/en/ev-9663-201-1-DO_TOPIC.html**
http://programafrida.net/en/presentation.html
http://www.isoc.org/isoc/media/releases/040323pr.shtml

III – Internet Policy and Web Site

ISOC Participation at WSIS

ISOC staff participated actively in all WSIS PrepComs as well as WSIS I and worked closely with other members of the Internet community to develop and communicate a number of position statements related to Internet policy and Internet Governance.

An ISOC press conference prior to the WSIS meeting outlined the issues behind the current Internet governance debate. Speakers included ISOC President and CEO Lynn St. Amour and Internet pioneer Dr. Robert Kahn of CNRI. The conference, which was broadcast live via web streaming, was well attended.

More info: **http://www.isoc.org/isoc/conferences/wsis/**
Video: **rtsp://ibs.itu.ch/archives/wsis/summit/pc-20031209-1600-en.rm**

ISOC Tutorials at WSIS

ISOC held two workshops during the World Summit on the Information Society to increase awareness of how the Internet has evolved by means of open, participative processes ('The Internet: How it Works, Why it Works, Who makes it Work?') and to explain the impacts and opportunities of new networking technologies ('The New Internet (IPv6) Workshop'). Speakers included Mr. Tarek Kamel, Senior Advisor for the Ministry of Communications & Information Technology, Arab Republic of Egypt as well as representatives of ICANN, the RIRs and the Root Server community.

More info: **http://www.isoc.org/isoc/conferences/wsis/**
http://www.isoc.org/isoc/conferences/wsis/workshop.shtml

Internet Policy and Web site

ISOC introduced a new series of information bulletins – many of which are specifically targeted at policy-makers. These bulletins were distributed widely during the first meeting of the World Summit on the Information Society and were provided to Chapters for use in their local outreach activities.

Bulletin titles include "Internet Governance: Strength and stability through open consensus", "Developing the Potential of the Internet through Coordination, not Governance", "The genius of the Internet: Open processes drive growth and connectivity" and "The Internet Society and Public Policy".

More info: **http://www.isoc.org/news/**
http://www.isoc.org/pubpolpillar/

IV – Community Building

Community Building and Infrastructure

A key goal of all our program activities is sustainability and empowerment at a local level. Local communities and networks of experts are key elements in building a strong, global infrastructure and we see this as the best and most efficient way for ISOC and PIR to leverage our activities and resources. ISOC members and chapters are expected to play a crucial and supportive role for our program activities, and they will help both ISOC and PIR reach out more quickly and more broadly than otherwise possible. To make it easier for our members and other interested parties to participate in these activities we intend to actively facilitate and encourage the building of communities and sharing of information.

Future system flexibility is a key requirement to manage and support these outreach efforts on an on-going basis. Work started during 2003 on defining the user requirements for a new ISOC membership and chapter management system and associated accounting system. This system is a prerequisite for future added-value individual and chapter programs. Several approaches to system design were evaluated and a vendor was selected.

ISOC's all-member newsletter continued to provide Chapters and individual members with a valuable communications channel that enables interaction between members of the Internet community and ISOC and PIR worldwide.

V – IETF Support

RFC Editor Support
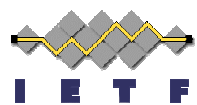
One of ISOC's key relationships is with the IETF, a group that is critically important to the functioning and future directions of Internet technology. ISOC continued to support the IETF's open standards process by increasing its long-standing funding of the RFC Editor. IETF publications such as RFCs, BCPs etc are all available via the web free of charge and represent unparalleled technical and educational resources as well as visibility of the Internet standards process.