

Empowering Local Communities

Colnodo, Colombia



Summary

Colnodo is a non-profit organization in Colombia that provides a wide range of ICT and Internet services, primarily to NGOs and other non-profit organizations. The services offered by Colnodo are targeted at organizations that make strategic use of the Internet for development, empowering the local communities and promoting the peace process. Currently, Colnodo services over 500 organizations in Colombia.

FOSS is used extensively by Colnodo for its ICT and Internet services. In particular, the ActionApps CMS, a collaborative web publishing tool especially suited for NGOs, is used to enable the organizations served by Colnodo to manage the content of their websites, as well as to exchange information with other sites easily by themselves. ActionApps runs on the LAMP platform and therefore, fits well into the FOSS environment in Colnodo.

Besides providing basic Internet services, Colnodo is also involved in the development of complex information systems such as the Internet for Accountability System and the Basic Municipality Environmental Information System. The former is an information system that allows municipalities to publish information to their communities online. To implement this project, Colnodo developed a system to administer the set-up of the several hundred sites that are under the system. For the Basic Municipality Environmental Information System, environmental information stored in a database is correlated to a GIS and this information can be accessed using mobile phones with Internet connectivity.

Colnodo has been in operation for 13 years and it is able to generate its own income from the services it provides. This is unique as its customers are mainly organizations that are not well-off and it is a non-profit setup that does not depend on funding from donors. FOSS has been a key contributory factor to the success of Colnodo, as FOSS applications are able to provide all the important services required by Colnodo's customers and they are available without licensing fees.

Background of Organization

The Colombian Non-Governmental Organizations' Association for Communication via Electronic Mail (Asociación Colombiana de Organizaciones No Gubernamentales para la Comunicación Vía Correo Electrónico) or Colnodo was founded in 1993 by seven non-profit civil society organizations and is one of the first ISPs in Colombia. Colnodo provides a wide range of Internet services, including e-mail, discussion forums, online databases, web hosting, audio and video broadcast, and search engines to over 500 organizations in Colombia. It also facilitates the effective use of Internet technologies by these organizations to enable their projects to have a bigger impact on their target audience.

Colnodo is the only non-profit ISP in Colombia. It has a full-time staff of about 15 members and several volunteers and contractors working in different projects. Its mission is to empower and support groups and individuals working for peace, human rights, development and protection of the environment, through the strategic use of the Internet. Colnodo is a member of the Association for Progressive Communications

(APC)³¹ and the Colombian National Confederation of NGOs.

Objectives of Project

Colnodo's main objective is to facilitate the communication and exchange of information and experiences among Colombian NGOs at the local, national and international levels. It supports the initiatives of grass-roots NGOs by providing ICT and Internet facilities and services to the people. Projects that have been carried out by Colnodo include Internet access to local communities, training in the strategic uses of the Internet for peace and conflict resolution, online education services, support for women networking online and the promotion of local services and content.

Another major objective of the organization is the empowerment of local communities using the ActionApps CMS. This software is available as FOSS and with it Colnodo has been able to support many organizations in the effective publication of online information.

The services offered by Colnodo are targeted at organizations that initiate projects that make strategic use of the Internet for development and allow people to have equal access to information. Some of the sites developed by Colnodo using ActionApps include:

- Youth Information Network (<http://www.rij.org.co>);
- Education for Peace Network (<http://www.educacionparalapaz.org.co>);
- Good Practices to Solve Conflict (<http://www.saliendodelcallejon.pnud.org.co>); and
- Sustainable Development Network (<http://www.rds.org.co>).

During the development of Colnodo, several key partners such as the Sustainable Develop-

ment Network, ISOC and APC were involved in building up the Colnodo network. Currently, in carrying out its mission, it is involved with various partners in ongoing projects. These partners include: Transparency for Colombia; Colombian Connectivity Agenda; the Development Gateway Foundation; and the Presidential Programme Youth Colombia.

FOSS Application

Description

Most of the projects that Colnodo is involved with make use of ActionApps. This is a collaborative web publishing tool especially suited for NGOs and non-profit organizations. It is created by APC.

ActionApps are publishing tools that plug into websites. In addition to publishing information, ActionApps allows the organization to create what it calls "Content Pools" to share articles with partner websites. This unique Content Pooling technology enables participating organizations to exchange articles between their sites. The organizations working with Colnodo find an efficient tool to publish information online and to build strong networks by exchanging information between sites in this CMS.

As ActionApps is built using the web scripting language, PHP, and it uses MySQL as the database to store the data published, it integrates easily into a FOSS-based web platform running the Apache web server on a GNU/Linux operating system.

Other FOSS applications used in the sites developed by Colnodo include:

- Mailman to manage mailing lists;
- Sendmail to manage e-mail;

³¹ APC is a non-profit organization that supports Internet uses for social justice and development. <http://www.apc.org>, <http://www.apc.org/actionapps/english/index.html>

- Htdig for search engines;
- Bekerley Internet Name Daemon to manage domain name services;
- Horde and Squirrel for web based e-mail systems;
- Teleduc as support for online education;
- Other CMSs for specific needs - Typo3, Drupal and Wikis; and
- Mapserver to provide access to GIS data through the Internet.

Choice of FOSS

Most organizations served by Colnodo are NGOs and non-profit organizations that cannot afford to pay high prices for using proprietary software for the CMS and database. FOSS is used since it has been found to be able to meet all the requirements of Colnodo's clients and partners. Also, it will be very difficult to implement projects that are intended to be distributed freely and widely, e.g. Internet for Accountability and the Municipal Basic Information System.

Development and Implementation

Originally Colnodo used GNU/Linux as a platform to replace its old Bulletin Board Systems so that many more users can be supported. Subsequently, with the advent of the Internet and the World Wide Web, Colnodo started to provide web hosting and other Internet services to organizations so that they do not have to invest in too many resources to have a presence on the Internet. Colnodo also started to provide very specialized services such as online GIS, online broadcast of radio programmes and the creation of efficient and reliable search engines.

The implementation of ActionApps enables Colnodo to offer its customers an affordable and easy means to manage their site content and to exchange information with other

sites.

Colnodo has developed complex information systems such as the Internet for Accountability System that allows municipalities to publish information to their communities online. To implement this project Colnodo developed a FOSS-based system to administer efficiently the set-up of the 460 sites that are under the system. The sites also provide tools that allow citizens to request for information and track their request online such as Really Simple Syndication (RSS)³³ feeds and e-mail alerts. These tools provide information access to anyone irrespective of their physical limitations or the platforms they are using.

In the Basic Municipality Environmental Information System, Colnodo developed an efficient system that correlates environmental information that is stored in the MySQL database with a GIS system and this information can be accessed by using mobile phones with Internet connectivity.

Deployment

Initially, Colnodo used very cheap IBM compatible machines for the servers, but in the last six or seven years, HP and Dell servers with hard disks arrays have been deployed so as to guarantee a reliable 24-hour operation. All of the servers run GNU/Linux while 70 percent of the desktops do so.

Currently, Colnodo runs more than 150 sites. Most of them use ActionApps and FOSS tools to support the communities that access them and use their services.

Most of the systems are accessed through the Internet. Communities are assisted to gain access through the telecentres and through local partners such as public schools and governmental programmes. However, this is still a problem

³³ A form of web syndication used by news websites and weblogs. http://en.wikipedia.org/wiki/RSS_%28file_format%29

as less than 10 percent of Colombians have access to the Internet. In some cases, access to information is provided through the use of CDs.

Colnodo is a self-sustaining, non-profit organization that is in existence for 12 years. It is only through the extensive use of FOSS that it is able to keep running its projects depending exclusively on its own income from the services it provides.

Impact

Colnodo serves more than 500 Colombian NGOs and non-profit organizations in projects that work for the betterment of humanity and the environment, and promote world peace. Its success will have a huge impact on the development and well-being of people everywhere and on the people of Colombia in particular. With the extensive use of FOSS, the tools and technology created can be more easily distributed and replicated to other developing countries. In particular, some of the projects served by Colnodo, like the Internet for Accountability, can have an enormous impact upon successful deployment as it allows the community to have access to the information that affects their lives.

The extensive use of the ActionApps enables NGOs to share their news and information readily. A conducive environment for information exchange and discussion is made available and these organizations should be able to coordinate their activities better and cooperate on important social issues.

Lessons Learned

The success of Colnodo shows that FOSS applications can be used in developing countries. The lesson learned is that FOSS can make many of the projects in developing countries feasible as implementing them using proprietary software will be prohibitively expensive.

FOSS can provide a chance for developing countries to make a difference and to allow them to participate globally in producing technology rather than just remain mere consumers of technology.

Current Status of Project

Colnodo is an ongoing endeavour. It is still providing Internet services to its customers and working with various parties on specific Internet social development projects, some of which have been mentioned in this book.

Other activities in the future include the setting up of wireless networks in rural areas that will help connect isolated communities and the integration of Internet tools with mobile phones, e.g. text message alerts that can be sent from networks to prevent catastrophes.

Benefits and Challenges

FOSS has benefited Colnodo tremendously in that it depends on FOSS for the numerous services and benefits that it provides to the organizations working with it. These include the economic hosting and easy management of their websites and the provision of Internet services that are usually very expensive such as GIS systems, online multimedia services and efficient search engines for large databases.

The ActionApps CMS solves many problems faced by the organizations that want to publish and exchange information in a cheap and easy fashion. With ActionApps, organizations have the power to publish and exchange information in a very efficient and easy way, allowing them to spend less time and resources in maintaining their sites. Using ActionApps, Colnodo can be competitive when compared with commercial ICT companies that charge high fees for the setting up and maintenance of websites.

Colnodo found many advantages of using FOSS at the server level and did not experience any

real disadvantages. At the desktop level it experienced some compatibility issues with proprietary platforms, e.g. the compatibility between Microsoft Office and OpenOffice.org. Also, for some desktop Linux distributions, there were difficulties in the support of certain hardware where there are no drivers available.

A key challenge is the integration of mobile phones and Internet services. In Colombia there are many more mobile phone users than Internet users and so if it is possible to integrate these two services in an efficient way, many more people can be served. This situation is generally true in most developing countries.

Other Information

Listed below are some of the current important projects by various organizations working with Colnodo.

- Internet for Accountability –Transparency for Colombia (Transparencia por Colombia) and Colnodo recently donated their new software “Internet for Accountability” to the local municipalities. More than 400 municipalities will receive the software along with Internet access on the signing of a transparency and anti-corruption agreement. With this, the mayor’s office in each municipality is encouraged to have its own website. This should promote transparency in the municipality and introduce accountability practices into the management of the municipal office.
- Basic Municipality Environmental Information System – Colnodo developed,

in coordination with the Ministry of Environment, Housing and Territorial Development and six governmental environmental organizations, a tool that allows these organizations and municipalities to publish their technical environmental data so that the information can be presented through a GIS.

- Youth Network for Peace and Sharing – This project seeks to strengthen the values of vulnerable youths in the urban areas of Bogota through the use of ICT.

Conclusion

Colnodo has had great success providing ICT and Internet services and facilities to other non-profit organizations in Colombia so as to help them have a bigger impact with their activities. FOSS applications are used by Colnodo to provide its services. One of these, the ActionApps, is well suited for the NGOs served by Colnodo and with this they can publish and exchange information in an affordable and easy way. Colnodo has also developed complex information systems such as the Internet for Accountability System and the Basic Municipality Environmental Information System, as part of its mission to empower the people with information through the strategic use of ICT and the Internet.

Colnodo is a self-sustaining organization that has been operating for 13 years without any funding from donors. This is probably not achievable without the use of FOSS as it is through FOSS that it is able to generate enough revenue from its services to support itself.

Awards and Recognition Received by Colnodo

Colnodo won a research award in 2000 from the Latin American Social Sciences Foundation (FLACSO) with a project entitled, “How to measure qualitative and quantitative impact: The design and implementation of online registration for public Internet access points mechanisms with Linux platforms”. The measurement tool developed from this project is available at <http://www.colnodo.apc.org/registro>

Contact Information

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Websites

The Colnodo website

<http://www.colnodo.apc.org>

Internet for Accountability

<http://www.iprc.org.co>

Prototype for Internet for Accountability

<http://www.municipios2.colnodo.apc.org>