



The NGO in Box Tool-Kit

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NGO-in-a-box is like the swiss army knife of free/ Open Source Software (FOSS) for non-profits in developing countries: all the applications you need in one small (and attractive) box, and the documentation that explains how your organisation can use them. It's a simple but effective concept that cuts down software selection, testing and download barriers and helps non-profits in developing countries get access to the software they need.

NGO-in-a-box is a box of CDs containing peer-reviewed and selected FOSS tools and documentation. Different editions of NGO-in-a-box are designed around specific themes and purposes. The first two editions deal with securing data and communication, and providing a basic set of office software for non-profits respectively. For each edition, a group of expert practitioners in the field carefully selects the suitable applications and describes how they can be used. All editions are designed for developing countries and low-resourced groups.

The Boxes are mainly targeted at technical service providers (or internal technical staff) who work with local NGOs to determine and address their software needs. Some NGO-in-a-box editions are suitable for end-users as well.

The NGO-in-a-box project increases the accessibility of appropriate and useful FOSS applications to non-profits in developing and transition countries by reducing the selection and testing process, cutting download barriers and providing tailored solutions. NGO-in-a-box is not only about software, but also provides relevant implementation scenarios and the documentation that is needed. The NGO-in-a-box concept was created by Amsterdam-based Tactical Technology Collective. The online "home" of NGO-in-a-box is <http://ngoinbox.org>.

The big picture: NGO-in-a-box solves software problems of NGOs

NGO-in-a-box tackles two primary issues; appropriate software selection and access to such software and its related documentation. The barriers facing NGOs can be broken down as follows:

General lack of expertise in selecting and procuring software applications

NGO-in-a-box comes with expertise built in. All of the tools have been used and vetted by a trusted group of peers and are packaged in a way that makes sense to less technical users as well. This is especially crucial in the area of FOSS. The landscape of applications is so diverse that overview and orientation have become daunting even to experienced users, and especially for those who have little time for searching and testing. For example, a search on *Freshmeat* (a popular FOSS developers' Website) for audio/ sound software will yield over 2,700 applications and projects. In addition, the review process often requires both sophisticated technical skills and familiarity with the needs of non-profit organisations in developing countries. The latter is notably rarely considered in most reviews and comparisons.

A need for tailor-made solutions for specific uses and organisations

NGO-in-a-box provides a regularly-updated collection of tools compiled to fit the needs of specific user groups and purposes. These trusted recommendations aggregated by topic or geographic region go a long way to helping groups seeking solutions, and simultaneously promote technology solutions to low-resourced groups. Activities of the non-profit sector are extremely diverse. They range from media production to advocacy and from providing health-care to education. The

operational context and related needs of each of these groups is equally wide ranging. As organisations seek out tools and techniques relevant to their specific area of activity, the task of gathering recommendations and compiling sets of inter-related applications that work well together becomes extremely daunting. Yet the needs are often common across specific sets of groups. For example, independent news media, regardless of their geographic location may share the need for simple accounting software that enables the tracking of subscriptions and advertising revenue.

Lack of Internet access to search for and download FOSS applications

NGO-in-a-box provides a comprehensive selection of FOSS tools and applications together with all the necessary documentation and background information in one package. Users do not need an Internet connection to download software. In addition, NGO-in-a-box can be freely duplicated locally. In the case of developing countries, the difficulty of getting FOSS does not stop once an appropriate tool (or set of tools) has been selected. Downloading software from the Internet can be at best difficult and often impossible due to a lack of cheap and fast access. To download even basic office software such as OpenOffice (>75MB) is not feasible over unreliable dial-up connections frequently found in low-bandwidth countries; and even if the connection speed and reliability are sufficient, the costs of telecommunications are often prohibitively high. The lack of connectivity also negatively affects the availability of technical support. Many FOSS applications do not come with extensive installation instructions or user manuals, but have good support through online discussion groups, e-mail lists or documentation pages on Web-sites, all of which require Internet access.

The target users of NGO-in-a-box

The box-sets are predominantly targeted at IT intermediaries/ service providers (e.g., eRiders, consultants, trainers), system administrators and self-taught technologists working within small- to medium-sized non-profit organisations. Some of the newer editions (the first example is the Security edition) are also focused at the non-profit end-user who has only basic computer skills. In this case, the amount and type of documentation is adjusted to provide the needed levels of support and user-friendliness.

Building boxes in collaboration to address the needs of practitioners

Traditionally NGO-in-a-box editions were developed at *Source* events – technology-focused workshops that brought together software developers and FOSS experts in different regions of the world. However, these editions were once-off creations and contained sets of software that were especially relevant to the participants of each respective *Source* event. In addition, they were not updated or maintained, something that requires significant time and effort. For these reasons, a decision was made to make new editions of NGO-in-a-box more independent of *Source* events and tie them to the needs of specific communities. The first two examples are the Security edition and the Base Box.

The aim for these communities of box builders and editors is to gather not only software experts, but primarily “practitioners” and end-users, who can think tactically and strategically in the non-profit context, and encourage the sharing of opinions and experience between these groups.

In order to support the collaboration between geographically dispersed teams of editors, an online community space has been created at ngoinabox.org. The site provides general information on the NGO-in-a-box project, and allows download of complete box-sets or individual applications.

Different NGO-in-a-box editions for different purposes and organisations

Previous regional editions (2003-2005)

- Europe edition (created during SummerSource Camp, Croatia, September 2003);
- Africa edition (created during AfricaSource Camp, Namibia, March 2004);
- Latin America – Spanish edition (created June 2004); and
- Asia edition (created during AsiaSource Camp, India, Feb 2005).

Current thematic editions (starting in 2005 and described in more detail below)

- Security edition (released September 2005); and
- Base Box.

Future editions (starting 2006)

- *Advocacy edition*: everything required for the development and implementation of advocacy

campaigns, including media production tools for audio and video and using mobile phones for advocacy work.

- *Independent Media and Open Publishing edition:* tools for open publishing, including publication management software, subscription tracking and tools to get content online easily and quickly.
- *Open Publishing edition:* a small publishing company in a box, including publication management software and advertisement tracking.

Security edition

The Security edition comprises a comprehensive suite of tools and materials that enable NGOs to secure their data and electronic communication. In addition, the Security edition box contains Martus (an application designed for human rights organisations) and the OpenCD (a selection of basic FOSS tools for Windows PCs). The Security edition does not require a migration to Linux; all software tools run on the Microsoft Windows platform.

The Security edition is predominantly aimed at human rights, anti-corruption, and women's groups, as well as independent media and journalists. Its purpose is to help these groups, and those who work as trainers and technical support with them, to familiarise themselves with the kinds of available security and protection tools and to start using them. However, secure communication requires more than just software tools, and depends heavily on users' awareness of the risks and ways that they can be addressed. For this reason, the Security edition provides a range of information and documents on security practices, public access to computers, computer viruses and risk assessment techniques.

The contents of the first CD of the Security edition are focused around a few core areas:

- *Internet and communications tools:* This section contains a set of basic email, Web-browsing, chat and Voice over IP (VoIP – a kind of Internet telephone) applications. The selected applications are typically more secure than alternative applications and information on the remaining risks is included.
- *Content security* (including anti-virus, ad-ware and anti-spam tools): An increasing amount of “malicious” code is distributed through e-mail or Web-sites. This includes viruses (which can

“infect” and potentially harm a computer), ad-ware (used for marketing purposes) and spy-ware (which records and then transmits user activities to a third party). The security edition contains tools to filter for these programs and remove them.

- *Data storage, backup and destruction:* Everyone who has ever lost important data knows how important regular and reliable back-ups are, and yet almost nobody does it. The tools provided make the back-up process easier and partly automated.
- *Destruction and retrieval tools serve a different purpose:* Data that is “deleted” on a computer often is still stored on the hard-drive and can be retrieved with suitable tools. The Security edition contains applications that reliably delete data and information in a way that makes retrieval impossible.
- *Password management:* Passwords are the first level of protection for computer systems and e-mail accounts. Two major password mistakes are common: (1) passwords are simple-to-remember and (2) users write their passwords down and leave them in places where others can see them (e.g., post-it notes on the corner of the computer screen). Contained in the Security edition is information on secure passwords and software that helps users generate better passwords, and protect them from others.
- *Encryption:* Encryption is the art and science of scrambling data in such a way that only the intended recipient of a message can read it. Encryption is of particular relevance to those likely to become targets of surveillance and censorship and the Security edition contains a few basic tools that can be used to encrypt e-mail communication or hide information in files such as images.

Two additional CDs created by other projects are included in the NGO-in-a-box Security edition:

- Martus is an application that supports the capturing, storing (on redundant international servers), and analysis of information pertaining to human rights abuses. For more info, see www.martus.org.
- The OpenCD is a basic collection of high quality FOSS applications that run on the Microsoft Windows operating system. For more info, see www.theopencd.org.

Base Box

The Base Box edition contains all the available FOSS software needed in the office of a small- or medium-sized NGO. It serves as the foundation around which other NGO-in-a-box editions are built. For this reason, the Base Box will be the most frequently updated and the most widely localised edition. The resources in the Base Box will be selected specifically to provide non-profits with the full range of FOSS tools available that they need to set up an NGO office (or migrate their office from closed source software). There will also be documentation within the base-box about what kind of applications are currently unavailable in FOSS that organisations need to operate. The box will also address what software will run well on low-resourced computers. The Base Box contents fall into the following categories:

- *Migration background information:* This section is designed to enable NGOs and their technical support staff and service providers to make smart choices about the software they use, and details the implications of migration from closed source software to FOSS alternatives. The documents describe migration scenarios, enable total cost of ownership calculations and provide implementation-planning tools to help organisations minimise disruptions.
- *Basic set of software applications and tools:* The Base Box comes filled with a wide range of FOSS office and communications tools that will allow them to function at a minimum baseline. This includes office suites, word processors and basic Internet utilities. Many of these applications will work on a variety of different platforms. Many applications do not require Linux, and can be used on a Microsoft Windows computer.
- *Linux operating systems specifically developed with NGO's in mind* (for example based on Ubuntu).
- *Small business server:* A pre-configured server operating system that includes file-and-print sharing, Internet services and can be used to connect a local network to the Internet.
- *Business and organisational tools:* This section contains a range of useful applications that go beyond the basic tools. It features a range of applications, including accounting software for NGOs, project management tools (including databases), simple publishing software, and groupware

applications that support and enhance collaboration.

Opening the box – What it looks like and how it works

Each NGO-in-a-box edition consists of a set of CDs packaged in a paper container. Some editions only contain the CDs, while others might include printed manuals.

What are the requirements for use?

Using NGO-in-a-box does not require sophisticated computer equipment or skills. Most of the software runs on old computers, and each box comes with introduction materials and extensive documentation for each software application.

Detailed requirements differ slightly between different editions of NGO-in-a-box, but generally the software is designed to be useful in low-resource environments. That means that many tools can be installed on old computers (Pentium I or Pentium II) and only sophisticated applications (such as OpenOffice) require more powerful hardware. Because many potential users are running the Microsoft Windows operating system, most of the FOSS applications in the boxes also run on the Windows platform.

Users should have basic computer skills and be comfortable installing and launching software applications. In the case of the Security edition, which is targeted at less skilled users, detailed installation instructions are provided for each application on the CD.

Using the box

The user will typically browse through the contents of the box, by selecting from the different software categories. A detailed list of applications in each category includes a short description of the software programme, additional information like the type of software and what operating system it runs on, what language it is available in, and links to more detailed installation instructions. In future, versions of the box will also indicate what technical level a user should be at to use the tool.

Distribution Channels – How to get a Box

One of the main benefits of the NGO-in-a-box project is that it provides an alternative distribution model for getting FOSS into the hands of those without cheap and fast Internet connections. The concept relies on a number of partners and distribution channels. Since

different editions of NGO-in-a-box will have different target audiences, not all of the following apply to each edition.

Current distribution channels

- *Online downloads:* for those with sufficient Internet connectivity the easiest way to obtain the latest versions of NGO-in-a-box is to download the software from the www.ngoinabox.org Website. The downloads will provide complete CD images (to make identical local copies of the full box-set) as well as online listings of tools and other materials for individual download. All software and other resources can then be duplicated locally. Links to the different editions will shortly be provided from <http://ngoinabox.org/boxes>.
- *Local and regional hubs:* The NGO-in-a-box project is working with local partners to establish permanent regional hubs that can support localisation of the software and promote and distribute the different box-sets regionally. The first regional hubs will be in South Africa and India and an up-to-date list can always be found at <http://ngoinabox.org/hubs>.
- *Workshops, conferences, training events:* Face-to-face gatherings have been the point of distribution for NGO-in-a-box to date. The project will continue to promote and distribute the box-sets at workshops, training sessions and other events that are organised by Tactical Tech, its partners or the editorial teams of the NGO-in-a-box editions. This “tagging on” to existing events, will continue to be a crucial point of connection with NGO-in-a-box, because it provides the opportunity to couple the boxset with hands-on training and essential practical skill exchange. Events will also be used to establish communities of users to collect feedback and comments, and to identify potential new editorial team members and partners. For a list of upcoming events, see <http://www.tacticaltech.org/>.
- *eRiders and other non-profit technology service providers:* eRiders are roving technology consultants who work directly with non-profits. NGO-in-a-box provides the tool sets that eRiders need in their daily work. By building relationships and networks with eRiders, feedback and comments can be used to adjust and update the content of the boxes. Based on extensive experience developing and supporting eRider

projects, Tactical Tech strongly believes in the important multiplier role these consultants can play.

Future distribution channels

- *Prominent organisations in specific focus areas:* The distribution methods mentioned above predominantly target the NGO-Technology sector in developing and transition countries. This is important for the more generic editions of NGO-in-a-box, but for wide dissemination of the more specialised editions (such as security, or GIS), collaborations with prominent sector-specific NGOs and networks will also be effective. For example, the Security edition would be especially useful in the context of groups such as Human Rights Watch or Amnesty International, who could in turn ensure wide dissemination of the software to the organisations they work with.
- *Online ordering and shipping:* The NGO-in-a-box project is currently investigating possibilities for shipping the boxes through secure online ordering and discussing opportunities to collaborate with large international organisations that could provide distribution networks.

Tactical Technology Collective

Tactical Tech strongly supports the development and use of FOSS. However, there are a few applications for which no appropriate FOSS tools exist yet. In these cases – and to ensure that the box-sets include all of the required tools – special licensing arrangements for limited distribution of selected shareware or closed source alternatives are sometimes negotiated. This way these applications can be included in NGO-in-a-box editions.

The NGO-in-a-box project is an outcome of Tactical Tech, an Amsterdam registered non-profit foundation (Stichting)’s large-scale regional workshops, guru gatherings and eRider work. For more information about any of Tactical Tech’s projects, visit <http://www.tacticaltech.org> or <http://www.ngoinabox.org> 

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