



## VIDEOCONFERENCING GIVES N.G.O. THE GLOBAL PICTURE



Like all non-governmental organisations, Plan has to ensure that by far the bulk of its income is devoted to its charitable causes. In Plan's case this is because millions of children live in extreme poverty and its aim is to ensure all of them realise their full potential in societies which respect people's rights and dignity.

For seventy years Plan has achieved lasting improvements in the quality of life of deprived children in developing countries by enabling them, their families, and communities to meet their basic needs, and to increase their ability to participate in and benefit from their societies. This is achieved through partnerships with local people based on mutual understanding and a shared commitment to projects that will benefit children throughout their lives. It takes the form of community projects that tackle the areas in which children are at risk, such as the lack of clean water and sanitation, low family income, HIV/AIDS awareness, access to education, and birth registration.

### **Across the Globe**

From this it is obvious that Plan operates globally, 66 countries to be precise, many of them in the more remote corners of the world. How, then, do their staff communicate effectively across their network of local, national, and regional offices, and from their International Headquarters in Woking? Jumping on a plane is one option, but restricting costs is a key concern as is the productive use of their time. As Kelvin Cantafio, Plan's ICT Director and CIO points out: "Our staff sometimes spent two days travelling to and from meetings that might last just half-a-day. Having tried teleconferencing, which in some circumstances proved unsatisfactory, we felt that videoconferencing could provide a much better solution."

His comments are borne out by a business case prepared in 2005 that showed their air travel costs had risen by 51% over the previous four years. Most of this increase was attributed to the growing number of projects being undertaken so was unlikely to diminish. In addition Plan reckoned that the cost of travel generally and flying in particular would rise steadily as the price of aviation fuel rose and higher rates of tax on air tickets were likely.



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Another consideration was the effect of flying on Plan's staff. A significant number found that regular flights disrupted their family life and involved considerable hassle, factors which are unlikely to improve as airport security measures tighten meaning even earlier airport arrival times, flight disruptions and delays.

Finally, Plan is very conscious of the environmental impact of aviation as a single long-haul flight can potentially double a person's carbon footprint. Working in the developing world they are aware that much of the likely impact will be in those regions for, as the recent report from the Intergovernmental Panel on Climate Change pointed out 'Global warming could bring extreme food and water shortages in vulnerable countries, and cause catastrophic floods that would displace hundreds of millions of people.'

The case for videoconferencing having been proven, Plan encountered difficulties inherent in implementing a global network. With the emphasis on cost-reduction, the traditional carrier for videoconferencing – ISDN – seemed to negate any likely savings from reducing travel. Typically the cost of a video call to Africa via ISDN - assuming the service is available - is £10 per minute: with some of Plan's meetings lasting three or four hours, that solution could not be cost-justified.

### **A Testing Time with IP**

Most Plan offices, however, have an internet connection and this offered the possibility of transmitting videoconferencing over IP provided the required level of service quality could be guaranteed.

To test this, Plan, with their supplier Questmark, established a pilot to ensure that current videoconferencing systems could operate across ordinary business class internet connections over the normal PSTN; and enable individuals and groups to meet and share PC-based information. The trial covered Plan's Woking-based international headquarters, and offices in Manila, Guatemala and Australia. Some of the systems had been donated to Plan and the others were loaned by Questmark and configured onto the existing wide area connections in each office.



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Questmark worked with Plan in the UK to facilitate, coordinate, and support this trial. Equipment was trialled from a range of manufacturers covering the spectrum of functionality, price and performance, and ease of use. The systems were configured onto the existing wide area internet connections at each of the offices. These were tested back to Questmark to help determine the optimal performance of each connection and then a series of calls were made between all of the Plan offices, with multipoint facilities and ISDN gateway being provided by Questmark to support calls involving more than two concurrent locations.

A number of network issues were identified such as firewalls obstructing traffic, and contention from other transmissions. Questmark worked through the pilot with Plan to identify means of addressing these technicalities and built the fixes into the overall network solution for Plan to be ready should videoconferencing be adopted beyond the pilot phase. These solutions were demonstrated during the pilot phase to give Plan the confidence that each barrier was not in fact insurmountable and that the aims and methodology identified by Plan and Questmark for the deployment of this application were robust and deliverable.

### **A First for Senegal**

Similar steps are now taken when Plan wants to deploy videoconferencing at a new site. Questmark works with the system suppliers and network operators to collect real operational experience of the quality of the internet connection to and from the location. This can involve sending a system for installation on line for testing to ascertain whether performance is satisfactory; if it is it becomes an actual installation. In Senegal, for example, Questmark prepared the unit in the UK, shipped it to Plan who sent it out to their office, plugged it in and, through remote access, were able to complete the configuration and management of the unit, and integrate it with the rest of their network. Once it was in place, Questmark used it to train the local staff on its operation and to get the full potential benefits of videoconferencing. This positive outcome has resulted in the installation of what is thought to be the first videoconferencing system in that country.



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A key factor in the subsequent deployment has been the managed service provided by Questmark that includes the continual testing and monitoring of the performance achieved at each site. This is undertaken virtually every day with a base of 192kbps, the minimum speed for satisfactory and usable video and audio on a link; some sites, though, are now performing at 768kbps and above.

Further components of the managed service include:

- A multipoint conferencing service to allow up to ten locations to connect simultaneously into a single call.
- A secure gateway service to ISDN networks to enable connections between systems on the public ISDN and systems deployed by Plan on the managed network.
- The ability to connect a number of PC based videoconference applications into the network to support video sessions from Plan meeting rooms with mobile and home workers.
- The ability to have normal telephone connected participants (VoIP or PSTN) in any conference call.

### **Applications**

Fourteen Tandberg and Polycom meeting room systems have been installed across Plan's regional, country and national offices as well as the International HQ; a further two are planned for their US offices. Two additional systems are being deployed in the International Headquarters on a sponsored basis by Questmark to support the increasing demand for conferencing services from this key location.

Used initially for purposes such as international management meetings, as their staff have become familiar with it and benefited from what Helen Edwards, Plan's Project Manager for Videoconferencing calls "the human aspect; it puts a face to a voice helping us to get to know people throughout the organisation, and, by being able to see and interpret body language it adds another dimension to communications"



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Now part of the organisation's culture, videoconferencing has been used by Human Resources for interviewing internal and external job applicants; by marketing for presentations; by the IT department for managers' conferences; while the media and communications department have recognised that, by connecting a broadcast quality camera and microphone, the systems can be used to give TV interviews without journeying to a studio.

Possibly the most interesting application is its role in a project to develop child sponsorship software outsourced to a company in India. As Susan Smandych, manager of the project explains: "The contract negotiations alone took two months during which time we were talking to Mumbai virtually every two days for as much as 6 hours at a time, so we were able to build a strong relationship with them before the project started. Since then we have run events such as a weeklong workshop in which they participated by video while regular co-operation by all the team is possible without expensive travel as is the participation from those in the field."

The service will be further developed in 2007 through the expansion of the number of systems deployed including two high definition systems, currently on loan on a trial basis, as their first move to this technology, together with more mobile systems for desktop/personal applications. A further possibility yet to be explored is to bring together sponsors with the children they support. Additional network based services will be considered, such as the capture, streaming and distribution of video and audio.

"For Questmark," says their Operations Director, Lisa Bryers, "this project has shown our ability to work closely with a client to deliver a particularly difficult deployment on a global scale and to support a long-term evolution that will continually provide benefits from their investment." And as Kelvin Cantafio concludes: "We are building on the core competence we have created in the last two years with videoconferencing to ensure it becomes one of the mainstays of our global operations."