Review of

the Information Technology (IT) Strategy for

the Social Welfare Sector

Final Report

Prepared by

Department of Social Work & Social Administration

The University of Hong Kong

December 2012

Table of Content

I. INTRODUCTION

Background

In December 2011, the Department of Social Work and Social Administration, the University of Hong Kong, was commissioned by the Social Welfare Department (SWD) to conduct a study to review the IT Strategy for the Social Welfare Sector (the Strategy).

2. The Strategy was drawn up in consultation with the Hong Kong Council of Social Services (HKCSS) to identify the direction and development of IT for the Sector and was launched in March 2001. Under the Strategy, a number of initiatives on the IT infrastructure, communications, application systems, accessibility and human-ware were implemented to enable the Non-Government Organisations (NGOs) to improve their use of IT in managing their organisations, communication and service delivery. Moreover, the welfare service recipients and disadvantaged individuals were assisted to use IT by making IT accessible to them and ensuring that they had the skills to use it.

3. One important element of the Strategy included a three-year financial support to the HKCSS to develop a self-financed unit, the Informational Technology Resource Centre (ITRC), to serve as an operation arm of the Strategy to facilitate the IT development in NGOs[1].

4. The Strategy was reviewed in 2004 by SWD in consultation with the Joint Committee on Information Technology for the Social Welfare Sector (JCIT), a committee set up in May 2001 to steer the implementation of the Strategy and oversee the IT development in the Sector under the chairmanship of the Director of Social Welfare. Upon the review, it was concluded that the Strategy formulated in 2001 remained a pertinent guide for continuous IT development in the Sector while the future direction should focus on encouraging IT projects to support service delivery, consolidating sharing culture through mutual learning and development of common IT applications, promoting human-ware as well as external IT support.

5. After the formulation and review of the Strategy, most of the NGOs had made solid improvement on the use of IT as well as their infrastructure, system applications, human-ware and communications through the funding support of the Business Improvement Projects (BIP)

[1] The ITRC was formed formally in 2002 and is now operating as a social enterprise providing total ICT solutions to NGOs. Source: Position Paper on Review of the Information Strategy For the Social Welfare Sector by the Information Technology Resource Centre, The Hong Kong Council of Social Service, submitted to the Research Team in October, 2012.

Scheme[2], Social Welfare Development Fund[3] (SWDF) and relaxation of the criteria for the use of Block Grant[4] (BG). Coupled with the increased IT knowledge of the staff in the past years, the wider use of IT among NGOs as well as their various IT enhancements had contributed to saving manpower, increasing efficiencies, facilitating agency administration and enhancing their accessibility. Nevertheless, the disparity on the degree of using IT in the NGOs' business process and the levels of IT development among NGOs remained obvious.

6. Taking into consideration the different levels of IT development and various IT requirements of the NGOs for meeting their management, operational and service needs and that the last review had already been conducted seven years ago, the SWD, after seeking the views of both the JCIT and the Sector, saw a strong drive for reviewing the prevailing Strategy in order to catch up with the progress of the IT development.

7. In formulating the new IT Strategy for the Sector in the future, there was a need to take stock of the different levels of IT developments, the different degrees of IT readiness, the various types of applications in force and in different stages of development, the existing provisions of hardware and IT staff support, as well as the current IT development plans of the various NGOs. In this review, the various key elements of the future IT Strategy would be evolved gradually through a research process, where views of various stakeholders and IT experts in the field were collected to form the basis of such Strategy and also served as the testing ground for the feasibility and acceptability of such strategic directions.

---

[2] The BIP Scheme, funded under the Lotteries Fund, was operated between 2001 and 2009 during which financial support was provided to NGOs in carrying out business improvement measures to achieve the objectives of improved quality, efficiency and responsiveness under the Lump Sum Grant environment. During its implementation, 24 NGOs submitted 29 IT-related projects at a total grant of $26.7 million (excluding the three batches of the Core Application Development Projects under the coordination of the HKCSS, which was also funded under the BIP Scheme). The IT-related projects covered primarily the human resources management, financial management, service delivery and capacity enhancement initiatives.

[3] The SWDF, funded under the Lotteries Fund, operates in three three-year phases covering a total of nine years, i.e. the first phase: from 2010-11 to 2012-13, the second phase: from 2013-14 to 2015-16 and the third phase: from 2016-17 to 2018-19. The BIP Scheme was subsumed under the SWDF since the latter's implementation. The scope of the SWDF includes both IT-related and non-IT projects. By 2011-12, a total of $79 million were approved for applications from 113 NGOs to implement 233 IT-related projects covering human resources management, financial management, membership system, website as well as various service delivery and capacity enhancement initiatives.

[4] The BG has been in place since September 2001, which aims at meeting the costs of routine replenishment of furniture & equipment, minor repairs and maintenance works for NGOs' subvented services. In 2009, with the support of the JCIT, the Lotteries Fund Advisory Committee (LFAC) endorsed (i) to provide LF grants to subvented NGOs on a one-off basis for replacement of personal computers; and (ii) to relax the criteria for the use of BG to include replacement / upgrading of IT equipment.

Objectives of the Review

8. The objectives of the review were:

(a) To formulate the long-term strategy and direction for IT development and information management in the Sector supporting the business and operational needs of the NGOs; as well as to enhance IT awareness among management and staff;

(b) To propose appropriate types and levels of IT support to be provided to the NGOs having regard to their current IT provision, maturity and readiness;

(c) To recommend priority in the use of resources to address the NGOs' IT needs and the possibility of setting 'benchmark' or 'baseline' on the IT equipment;

(d) To examine the suitability, need and business benefits to include the following IT projects / proposals in the priority list having regard to resources implications:

- Intranet including setting up of Local Area Network (LAN)
- Client Information System (CIS)
- Proposal on consultancy service and IT strategic planning / development of the NGOs

(e) To identify areas / opportunities for promoting the use of e-Services and shared platform in the Sector and / or with SWD and explore the use of latest technologies to enhance the NGOs' IT infrastructure, system design, and capacity for improving their corporate management, operational efficiency, service delivery as well as communication with the service users, public and SWD; and

(f) To review the roles of SWD, NGOs, and other relevant stakeholders towards the promotion of the use of IT in the Sector.

Scope of the Study

9. In this study, both qualitative and quantitative data were collected from multiple sources for triangulation of methods and data sources and to increase robustness of the findings. The scope of the study included:

(a) Survey / exploratory and evaluative study / quantitative and qualitative researches on the existing IT systems / provision, management, development and IT needs of the NGOs in Hong Kong;

(b) Documentary study on the NGOs' policies, procedures, related documents / reports pertinent to the use of IT, and the implementation details of IT projects, etc.;

(c) Literature review, including both local and overseas research studies on the good practices for formulation of the Strategy of the above-mentioned aspects among the NGOs in Hong Kong; and

(d) Focus group discussion and in-depth interviews at sector level, agency / management level, staff level, service and service user level, etc. for NGOs of different sizes to understand their IT needs, direction and difficulties.

II. METHODOLOGY

General Approach

The formulation of an IT Strategy for the Sector involved the achievement and appropriateness of the previous Strategy and collection of relevant information / opinions / expectations from major stakeholders regarding the key processes / elements of the Strategy. The information collected followed the strategic planning model described in Appendix I.

2. The key stakeholders involved in this study included: (a) board members, (b) senior executives and middle management, (c) frontline staffs, and (d) service users, from NGOs with varied backgrounds, such as service nature, size, level of IT development / applications, etc. Other stakeholders included business and community partners, donors, IT service providers, etc.

3. A combination of in-depth interviews, focus group interviews, survey, and case studies were used for information collection. In addition, documents / applications / system reviews were used whenever appropriate.

4. The following table summarised the arrangement of data collection for this review:

Table 1 - General approach in review

Objectives	NGO board members	Senior executives and mid level management	NGO frontline staffs	Service users	Other stakeholders
a) To formulate the long-term strategy and direction for IT development...	In-depth interview	In-depth Interview Focus group Survey	Focus group Survey	Focus group	Focus group
b) To propose appropriate types and level of IT support…	In-depth interview	In-depth interview Focus group Survey	Focus group Survey	Focus group	Focus group
c) To recommend priority in the use of resources to address NGO's IT needs…	In-depth interview	In-depth interview Focus group Survey	Focus group Survey	NA	NA
d) To examine the suitability … to include three types of IT projects (LAN, CIS, Consultancy)	In-depth interview	In-depth interview Focus group Survey	Focus group Survey	NA	Focus group
e) To identify areas / opportunities for promoting the use of e-services and shared platform…	In-depth interview	In-depth interview Focus group Survey	Focus group Survey	Focus group	Focus group
f) To review the roles of SWD, NGOs, and other stakeholders…	In-depth interview	In-depth interview Focus group Survey	Focus group Survey	Focus group	Focus group

Table 2 - Numbers of interviews, focus groups and questionnaire survey conducted

	NGO board members/ senior executives	middle management	NGO frontline staffs	Service users	Other stakeholders
In-depth interview	All subvented agencies were categorized into small, medium and large NGOs according to the amount of their Lump Sum Grant allocation[5]. Nine NGOs, three in each size category, were selected. Interviews with board members / senior executives were conducted separately unless the agency has reported no differentiation of role among staff responsible for IT. Two small NGOs and one medium NGO ended up having joint interviews and a total of 15 interviews were conducted.				
Focus group interview (5-16 persons per group)		1for small size NGOs **2** for medium size NGOs	**1** for small size NGOs **2** for medium size NGOs	**2** for service	**2** (service provider, community partners,

[5] NGOs with different levels of IT development were invited. Based on the findings of the Review of the IT Strategy in the Social Welfare Sector in 2004, the general trend was that larger NGOs were more advanced in their IT infrastructure, having higher penetration rate and a higher degree in human-ware sophistication. In this study, NGOs were categorized by the amount of subvention allocations in the period of 2011-12. Those with a lump sum grant allocation of ≤ HK$5,000,000 were categorized as small, those with ≥ HK$5,000,001 and ≤ HK$50,000,000 medium and those with allocation ≥ HK$50,000,001 large. Using these criteria, among the 171 NGOs subvented during this period, 36 were categorised as large, 72 medium and 63 small size NGOs.

		2 for large size NGOs 1 joint interview for small size NGOs.	**2** for large size NGOs	users[6]	IT professionals)
Survey	109 (directors / representatives)	922 unit in-charges			
Case Study			**10 cases**		

*

**

[6] Selection criteria: Service users in IT training / access programmes, and users of web / IT based services (counseling, social media, etc.)

Details of Data Collection Methods

In-depth interviews

5. A total of nine NGOs were selected for in-depth interviews. The purpose was to obtain a thorough understanding on the development and implementation of IT in the respective NGOs. The NGOs were chosen to ensure diversity in sizes (three NGOs in each size category), levels of IT development (size of the agency was assumed to be a proxy for IT sophistication), and service nature. These considerations were based on the assumption that such factors would affect staff's experience and perceptions about IT Strategy in the Sector. In-depth interviews were used to collect detailed information about their experience in developing IT capacity in the agency; as well as their views towards the elements and process of formulating IT Strategy for the Sector.

6. For the nine NGOs selected, interviews were conducted with two levels of staff: board members / senior executives and middle management. In each agency sampled, staff was interviewed separately or together depending on the compartmentalised functions of each NGO in their IT development.

7. The selection criteria for in-depth interviews were board members and staff who were well informed of the IT development in the agency. If the board members were not familiar with the agency's IT development, the Research Team would discuss with the selected NGO to identify another appropriate person, e.g. member(s) of a relevant sub-committee, for the interview; or, having a joint interview with the board member(s) and the senior executive / middle management of the agency.

8. During the interviews, where available, documents relevant to the study, such as their agency IT plans and projects were solicited for the review.

9. Questions asked during the interviews for board members / senior executives were:

- What are the previous / current strategy / plans of IT development in your organisation?
- What are the major projects you have implemented in your organisation?
- How do you finance these plans / projects?
- What have you achieved?
- What are the critical success factors and good practices?

- What are the major barriers you have to overcome?
- What are the future visions about IT development in your organisation?
- What are your views on the support provided by SWD, and other stakeholders? What should be their respective roles?
- What are your views on the development of an electronic information exchange platform with SWD? In particular, the client-based information system?
- What are your views on the existing IT Strategy for the Sector? And what do you expect from the future IT Strategy? In particular, in responding to the rapid development in IT technology, such as cloud computing.
- What are your views on the process to formulate such Strategy?

10. Questions asked during the interviews for senior executives / middle management were:

- What are the major IT plans and development in your organisation?
- What are the major projects you have implemented / planned to implement?
- Has your agency ever applied for the Business Improvement Project (BIP) / social Welfare Development Fund (SWDF) for IT projects? If yes, what have your experienced been? If not, why?
- What are the major structure / process to implement these projects?
- How are these projects conceptualised / developed / financed / implemented?
- How do you prepare your staff at different levels to take part in / make good use of these plans / projects / new functions?
- What are the critical success factors and good practices?
- What are the major barriers you have to overcome?
- What are the major IT needs in your organisation now and in the future?
- What are your views on the support provided by SWD, and other stakeholders? What should be their respective roles?
- What are your views on the development of an electronic information exchange platform with SWD? In particular, the client-based information system?
- What are your views on the existing IT Strategy for the Sector? And what do you expect from the future IT Strategy? In particular, in responding to the rapid development in IT technology, such as cloud computing.

- What are your views on the process to formulate such Strategy?

Focus group interviews

Senior executives / middle management

11. To allow a more dynamic exchange and stimulation of ideas, instead of conducting agency-based interview sessions, focus group interviews were conducted with representatives invited from different NGOs. A total of six focus group interviews[7], two from each size category, were conducted with participants at senior executive or middle management level. Within each focus, NGOs with similar service nature and levels of IT development were invited.

12. Questions asked during the interviews for senior executives / middle management were:

- What do you think are the major contributions of IT development to the NGO Sector?
- What are the current / future IT needs among NGOs of your (small, medium, or large) size?
- What are the critical success factors for formulating and implementing the IT development plans in NGOs?
- What do you think about the previous / existing IT strategic plan for the Sector?
- What do you expect from the IT strategic plan for the Sector? In particular, in responding to the rapid development in IT technology, such as cloud computing.
- What do you think should be the roles of SWD and the Sector in formulating / revising the IT strategic plan for the Sector?
- What is your view on the development of an electronic information exchange platform with SWD? In particular, the client-based information system?
- Has your agency ever applied for the BIP / SWDF for IT projects? If yes, what have your experienced been? If not, why?

Frontline staff members

[7] Due to the number of participants available for interview (less than 3), one of the focus groups for senior executives / middle management of small NGOs has been combined with that for frontline staff.

13. The arrangement was similar to that for senior executives / middle management, i.e. two focus group interviews for each size category. Again, a total of six focus group interview[8] were conducted.

14. Questions asked in focus group interviews were:

- What is your experience (what are they, how useful they are…) with your agency's IT system in administration and service delivery?
- What do you think are the major contributions of IT to frontline services?
- What are the critical success factors / barriers for launching IT applications in administration and service delivery?
- Do you think that service users are ready to make a better use of IT in receiving services? What should be done to improve the situation?
- What is your view on the development of an electronic information exchange platform with SWD? In particular, the client-based information system?
- What do you expect from the IT strategic plan for the Sector?

Service users

15. Two focus group interviews were organised for service users (including people with disabilities such as visual impairment and hearing impairment). One was for those who had participated in training programmes / computer donation programmes that aimed at increasing the accessibility and knowledge in using ICT. The other was targeted at those who had used services delivered through the use of ICT, such as counseling, social networking services, etc. The focus was to explore their interaction with the IT system and what experiences they had. As far as possible, participants from a variety of service needs and background were invited.

16. Questions asked in focus group interviews were

<u>On access</u>

- What support do you get from NGOs in gaining IT access and knowledge?
- What do you think about them? Are they useful, convenient, user friendly?
- What could be done to further improve service users' IT access and knowledge in the future?

[8] Please refer to footnote number seven.

On service delivery

- What services are you getting via the IT applications (e.g. website, assistive device from NGOs)?
- What do you think about these services? Are they useful, convenient, user friendly?
- What could be done to improve these services?
- What are the services that you want to have via the IT applications of the NGOs?

On client-based information exchange

- What is your view on exchanging / sharing of client-based information with other relevant public bodies, such as SWD?

Other stakeholders

17. This category included IT service providers, community partners and IT professionals who had contributed to and collaborated with NGOs in their IT development. Two focus group interviews were conducted to explore their experiences in working with NGOs, their understanding on the characteristics / needs and expectations on IT knowledge from the Sector, difficulties they had encountered in the working relationship and possible solution.

Questionnaire surveys

18. Two surveys were conducted through mail questionnaires supported by telephone contacts.

19. The first set of questionnaires was targeted at senior management of subvented NGOs in charge of the IT strategy of their agency. Questionnaires were sent by mail to all subvented NGOs that provide direct service (170 NGOs as at April 1, 2011)[9] 109 questionnaires were successfully enumerated and the response rate was 64.1%. For a single variable measuring a proportion, the maximum margin of error (confidence interval) is plus or minus 5.62% at 95% confidence level.

[9] There were 171 subvented agencies in 2011-12. One of them, the Hong Kong Council of Social Service, did not provide direct service and was not included in the population.

20. The second set of questionnaires was targeted at Unit in-charges of the service units in Hong Kong. A total of 1 951 service units were identified from the SWD website[10]. At the discretion of individual NGO, questionnaires were sent by mail either through the agency headquarter or directly to the correspondence address of the unit. For agencies with only one unit, only the questionnaire for senior management was sent and the case was excluded from the unit sample. A total of 1,904 questionnaires were sent and 922 questionnaires were successfully enumerated. The response rate was 48.4%. For a single variable measuring a proportion, the maximum margin of error (confidence interval) is plus or minus 2.32% at 95% confidence level. The margin of error would be larger if the sample is divided into sub-samples.

Case studies

21. A total of ten IT projects of different nature and degree of impact were selected. The inclusion criteria were: (a) the project amount was at least $100,000; and (b) it has either been completed, or in a later stage of implementation when the study was conducted. A variety of cases were selected, including those with positive results and those that had encountered challenges / difficulties in achieving their goals. The focus was to identify success factors and lessons learnt.

22. To capture information from more NGOs of varied sizes, levels of IT development, and service nature, the ten case studies were selected from NGOs other than the nine NGOs that were chosen for in-depth interviews. Therefore, the maximum number of NGOs covered in in-depth interviews and case studies was 19. The breadth was able to form a sample with good coverage and variation.

23. Each case study included the following approaches where appropriate:

- Familiarisation visit
- Document review
- Interview with senior management
- Interview with IT staff, system overview
- Focus group: frontline / mid-level management
- Interview with user (one to two groups if applicable)

[10] Source: SWD website retrieved in January 2012.

24. Information collected in case studies

Senior staff and IT staff

- How was the project conceptualised / formulated? Was it related to an IT strategic plan of your agency?
- How was the application being developed (Needs / requirement, design, implementation, verification, maintenance)? Who was involved in the process?
- What was the performance of the application, has it achieved what it was designed for?
- How was the project being financed?
- How did you make decisions about: (a) using proprietary or non-proprietary system; (b) selection of platform, open-source or otherwise; (c) installation of agency server, or use outside service; and 4) system upgrading?
- Did you receive any consultation service for developing the application?
- How did you handle the tendering, specification, testing, monitoring process with the vendors?
- How did you train up staff members for utilising the application?
- How did you handle different pace of adoption among staff members?
- What are the future plans of application / system development of your organisation?
- What do you think about your organisation needs for LAN, CIS, IT consultancy services?

Middle management / frontline staff

- Were you involved in the design / test run stage of the system, and in what way?
- If so, to what extent is your feedback incorporated in the final version of the system?
- How does the new system differ from the previous one you had, if any?
- Do you receive any training to implement the new system, how useful are these training?
- Have you encountered any difficulties in implementing the system? What support have you received in overcoming these difficulties?
- Have you been involved in conducting evaluation of the new system?
- In what way the new system has improved your administrative operation / service delivery?

- What suggestions do you have to improve the system?

Service users

- Were you involved in the design / test run stage of the system / service, and in what way?
- If so, to what extent is your feedback incorporated in the final version of the system?
- How does the new system differ from the previous one you used, if any?
- Do you receive any training to use the new system / service, how useful are these training?
- Have you encountered any difficulties in using the system / service? What support have you received in overcoming these difficulties?
- Have you been involved in conducting evaluation of the new system / service?
- In what way has the new system / service improved the service you received?
- What suggestions do you have to improve the system / service?

III. **FINDINGS**

Documentary Review

Overseas experiences

Literature review of six selected countries i.e. England, Australia, the United States, Canada, Singapore and Korea was conducted to study their IT development and policies / strategies.

2. All these six countries had introduced policies / strategies to guide its IT development at a national level or for the operation of its Government. They were highly centralised strategies, and no specific provision for the social welfare sector was found. These nation-wide strategies were usually formulated to increase the country's global competitiveness (e.g. iN2015 of Singapore), for better government (e.g. Canada, Australia, England, the United States), and to improve the quality of life of its citizens (e.g. Korea). A summary of these strategies and their objectives are presented in Table 3.

Table 3: Summary of overseas IT strategies

Country	**Latest IT Strategies**	**Key strategies**
Korea	IT Korea Masterplan 2008-2012	- Public-private collaborative governance - Converged informatization - Focusing on adverse effects of informatization - Utilization-focused services for users
Singapore	Intelligent Nation 2012 (iN2015) (2006-2015)	- Establish an ultra-high speed, pervasive, intelligent and trusted IT infrastructure - Develop global competitiveness
England	ICT Strategy by the Cabinet Office (March 2011)	- Reduce waste and project failure - Create common ICT infrastructure - ICT to enable and deliver change
Australia	ICT Strategic vision 2011	- Deliver better services - building capability - enabling better services

Country	Latest IT Strategies	Key strategies

		- Engage openly
		  - creating knowledge
		  - collaborating effectively
		- Improve government operations

US	IT reform of the Federal government (2010) (CIO.gov)	- Move from 'grand design' to 'light technologies' - 'Cloud First' policy

Canada	Policy Framework for Information and Technology	- Provides strategic context in the areas of
		  - information management
		  - management of information technology
		  - privacy and data protection policy
		  - access to information policy
		  - policy on government security

3. At the community level, the focus of government involvement was mainly on bridging the digital divide among various social groups and the deprived. For example, the National Information Society Agency (NIA) in Korea launched the 'Smart Angels Korea Movement' to promote donation and sharing to close the information gap between government departments and agencies. In Singapore, the Infocomm Development Authority (IDA) launched projects to subsidise computer ownership for households in need, promote greater infocomm awareness among senior citizens and promote accessibility for the disabled. Other countries, such as Australia, launched the 'Broadband for Seniors' to provide computer access via free internet kiosks.

4. There were initiatives from non-government organisations to address the ICT needs of the human services. For example, in North South Wales (NSW), the Council of Social Service of New South Wales (NCOSS) conducted a study in 2008 with the objective of developing an overarching ICT strategy for the NSW NGO sector. This study had come up with a number of recommendations, including (a) shared service model of ICT support; (b) substantially increased ICT training

provision, (c) feasibility study and trial of aggregated ICT services; and (d) an 'NGO specific' ICT guide for negotiating and contracting ICT services[11].

5. Many of these initiatives were focused on capacity building of non-profit organisations. Examples included some innovative approaches in providing IT support for small NGOs, such as the 'Circuit rider' model[12], iT4Communities (iT4C)[13], CompuMentor[14], and knowledge sharing platform such as NTEN[15].

6. Government funding for these projects often started with helping the NGOs in building up their infrastructure. For example, the British Government recognised the need for ICT skills in the voluntary and community sector and made available £6.25 million 'Early Spend' revenue to support the development of an infrastructure strategy for the sector in 2003[16]. In Canada, the government launched a $20 million programme in 1999 to 2002, connecting10 000 voluntary organisations to the internet as well as providing training for their staff and volunteers[17]. However, information was not available about the operations and impacts of these initiatives. Neither was there information about further support and investment to sustain such efforts.

7. Information on IT development in the countries studied did not suggest the presence of a government-led welfare-specific IT strategy. Welfare related IT development often subsumed under a comprehensive IT strategy for the country or the

[11] NCOSS plays the role of coordination and leadership for non-government social and community services sector in New South Wales.

[12] It is a model for ICT support for small NGOs who have no IT support staff of their own. Circuit riders are 'mobile workers who provide ICT support and development to a caseload of small voluntary organizations and who work in collaboration with other circuit riders. Source: Pavitt, Simaon & Lord-Soares, Sarah (2006). Circuit riders 2.0. The evolution of ICT development and support for the voluntary sector.

[13] This is a UK national IT volunteering charity that introduces IT professionals to charities needing IT help and support.

[14] CompuMentor is a NGO specializing in technology assistance for community-based organizations and schools. It is also the home of TechSoup.org, the technology website for the nonprofit sector.

[15] NTEN is a website dedicated to facilitate the exchange of knowledge and information among NGOs, technology support organizations, circuit riders and independent consultants.

[16]Source: http://webarchive.nationalarchives.gov.uk/+/http://www.homeoffice.gov.uk/docs2/earlyspend_exempdevfunds.html

[17] Source: http://www.archive.dbcde.gov.au/2009/may/community_connectivity/information_and_communication_technologies_transforming_the_nonprofit_sector_a_discussion_paper

government. Government involvement in welfare-specific IT development seemed to be focusing on provision of resources for infrastructure-building or projects for bridging digital divide in the community. Continuous support for IT among NGOs in the welfare sector relied on non-government initiatives that were need-driven, e.g. 'Circuit Rider' model, iT4C.

IT environment in Hong Kong

8. In Hong Kong, the Commerce and Economic Development Bureau (formerly the Information Technology and Broadcasting Bureau) launched its Digital 21 IT Strategy in 1998, and the Office of the Government Chief Information Officer (OGCIO) was set up in July 2004 to take the lead in delivering the ICT functions within the Government and in championing ICT development in the community under the Digital 21 Strategy[18].

9. The Digital 21 Strategy has been revised thrice and the latest one was the 2008 Digital 21 Strategy. The vision of the Digital 21 Strategy was "advancing our achievements and seizing new opportunities: building on Hong Kong's position as a world digital city" and five key action areas were identified for implementation between 2008 and 2010. These key action areas included (a) facilitating a digital economy; (b) promoting advanced technology and innovation; (c) developing Hong Kong as a hub for technological cooperation and trade; (d) enabling the next generation of public services; and (e) building an inclusive, knowledge-based society.

10. The fifth key action area aimed at ensuring that the benefits of ICT adopting be widely available to different segments of the community. A digital inclusion task force comprising multi-stakeholders was set up to formulate strategies and initiatives. The Government committed itself to take on a leading role in bridging the digital divide through forging partnerships with NGOs in running digital inclusion programmes, expanding the availability of free computing facilities and sponsoring the Digital Solidarity Fund[19]. However, some Legislative Council members noted

[18] Office of the Government Chief Information Officer (2012, October). Fact Sheet: Office of the Government Chief Information Officer. HK: Hong Kong SAR.

[19] The Digital Solidarity Fund (DSF) was established in 2004 by the Hong Kong Council of Social Service. It is financially supported by the Government and the commercial sector. It aims to prevent disadvantaged groups from becoming further marginalized in information society. By the end of April 2011, the Fund had received close to 300 proposals, supported 63 projects with a total grant amount of over HK$10 million and brought benefits to over 20,000 people directly. The OGCIO has stopped financing the DSF since April 2012 and finances related projects directly.

that while ICT accessibility among children in low-income families has improved and a dedicated portal for the elderly has been launched in June 2010, not much progress has been made among people with disabilities (LegCo ITB Panel, 2010).[20][21]

11. In the public sector, heath service was one of the first initiatives to use IT to improve operation process and outcome. The most prominent one being the Electronic Patient Record (ePR) developed by the Hospital Authority (HA) in 2002, in which, a patient-centered database integrating information generated from all clinical services under the (HA)[22] was established. However, this Clinical Management System (CMS) was confined to public health service. In 2006, the HA launched a pilot project to expand their electronic health record system to include sharing of information between the public and private sector - the Public-Private Interface – Electronic Patient Record Sharing Pilot Project (PPI-ePR). This system allows authorized healthcare practitioners in the private sector to access, one-way, HA's patients' records with the patients' consent.

12. However, HA reported that electronic patient records are currently not widely adopted in the private sector. Up to December 2011, 1,752 healthcare providers in the private sector have enrolled in the PPI-ePR and only 3/4 have actually used the system. Furthermore, the community in general seemed to be wearied of the security of the PPI-ePR system. Although nearly 20 thousand patients have enrolled in the system, only around half had made used of it[23].

13. In the education sector, it has started formulating its IT Strategy in 1998 with the vision to build up e-capacity of the school and to encourage a more interactive learner-centred e-learning environment for the students. Since then, the Strategy has been reviewed three times with the latest one issued in 2008.[24] Although it would be

[20] Legislative Council, Information Technology and Broadcasting Panel (April 12, 2010) Minutes. Retrieved from http://www.legco.gov.hk/yr09-10/english/panels/itb/minutes/itb20100412.pdf on 14 May 2012.

[21] It is noted that the Government Chief Information Officer (GCIO) has produced practical guides for reference by website developers to facilitate understanding of the key requirements for web accessibility. OGCIO has also conducted Web Accessibility Campaign to promote wider adoption of accessible website design in both public and private sectors. Ref: http://www.legco.gov.hk/yr11-12/english/panels/itb/papers/itb_ea.htm#1112.

[22] Fung, M. et al (year unknown). Experience of implementing a Centralized electronic Patient Record for 6.4 million patients. Source: http://kosmi.snubi.org/2003_fall/APAMI_CJKMI/O6-8-114-Fung-0922-revised.pdf

[23] Director of Audit's Report No.58. Chapter 3: Hospital Authority: Public-private partnership (PPP) programmes. Source: http://www.aud.gov.hk/pdf_e/e58ch03.pdf

[24] The first being 'Information Technology for Learning in a New Era Five-Year Strategy 1998/99 to 2002/03; the second one was 'Information Technology in Education – Way Forward' issued in 2004 and

difficult to compare the development and implementation of IT Strategies between the Education Sector and Welfare sector due to the differences in IT needs, the funding model could still be worth mentioning as a reference.

14. Since the launching of the IT Strategy in the Education Sector in 1998, between the year 1998/99 to 2006/07, the government has invested about $7,150.3 million in the implementation of IT in education, including $5.348.4 million in non-recurrent cost and $1,801.9 million in recurrent cost[25]. As early as in first Five-Year Strategy for 1998/99 to 2002/03, the need for recurrent cost to purchase consumables, educational software packages and to pay for other charges has been recognized and it was recommended that expenditure on IT facilities should be included in an aggregate Block Grant with which schools should be allowed maximum flexibility in the use of all resources available to them[26].

15. At this moment, the recurrent cost on IT in Education was provided by the Composite Information Technology Grant (CITG) under the Operating Expenses Block Grant (OEBG). This includes provision for contractors for maintenance services for their IT facilities / projects procured by government funds, service fee for IT consumables, internet security services and upgrading and replacement of IT facilities[27].

16. In sum, e-Health and e-Education are the two most sophisticated public initiatives in using used IT to enhance service effectiveness and efficiency. Although the IT needs of these sectors were very different, what the welfare sector can make reference to are: (i) importance of voluntary nature of and incentives in participating in information sharing (e.g. PPI-ePR allowed one way access of private practitioners to HA information with patients' consent); and (ii) consideration for

---

the latest one entitled 'Right Technology at the Right Time for the Right Task' issued in 2008. Source: http://edbsdited.fwg.hk/3ITED/WebSite%20800x600/index_e.html

[25] Education Bureau (2007). Consultation Document on the Third Strategy on Information Technology in Education: Right Technology at the Right Time for the Right Task: Source: http://www.edb.gov.hk/index.aspx?nodeID=6230&langno=1

[26] Education and Manpower Bureau (1998, June). Consultation document on Information Technology for Quality Education: Five-Year Strategy 1998/99 to 2002/02.

[27] The CITG was introduced in the 2004/05 school year whereby aided and caput schools were given greater flexibility in managing their resources for continuous implementation of IT, including purchase of IT-related consumables, learning materials, internet connection and internet security services fee, employment of Technical Support personnel or hiring of services. Source: http://www.edb.gov.hk/index.aspx?nodeID=2654&langno=1, http://www.edb.gov.hk/FileManager/EN/Content_2306/edbcm06149_e.pdf

recurrent costs implications (e.g. recurrent costs for consumables, services and upgrading of equipment).

In-depth interviews

17. Nine NGOs covering a diversity of sizes (large, medium and small) and services nature were selected for in-depth interview. The focus of the interviews was to explore their experiences in the development and implementation of IT strategy in their organisation and their views towards the elements and process of formulating IT strategy for the sector.

18. Size of NGOs was categorised according to the amount of subvention allocated in 2011-12 as follows:

Size	Subvention Amount	Number of NGO
Small	≤5,000,000	63
Medium	≥5,000,001 & ≤50,000,000	71
Large	≥ 50,000,001	36
	Total	170

19. Three NGOs in each size category were selected and interviews were conducted with two levels of staff: (a) board members / senior executive; and (b) middle management / frontline staff either separately or together depending on whether such level of staff were involved in the IT development of the agency. Two small NGOs selected reported to have no differentiation of role between senior staff and frontline staff regarding their IT functions. Therefore, one joint interview was conducted with the relevant staff members together instead of separately. A total of 15 interviews, covering nine agencies, were conducted.

<u>IT environment and planning</u>

20. The level of IT sophistication of the agencies interviewed appeared to be affected by the size, culture, and IT readiness of the management. Small NGOs typically lack the financial and human resources to develop agency IT beyond basic infrastructure and did not have any IT strategic plan. For medium and large NGOs, IT-awareness of the management and the initiatives of the IT staff often played an important role in the development of IT strategies and guidelines. Take collection of membership fees as an example, it was common for many small and medium size agencies to do so manually and then transferred the data into EXCEL files.

Although newer IT systems may reduce human error, some staff, especially those not familiar with using computer, would still find it easier to use the traditional method then to learn new IT skills.

21. Even for agencies with more long-term plans in their IT development, the general trend tended to see IT as a separate entity, focusing on the development of IT applications. Only a few larger agencies had developed strategic plans in alignment with their business operation.

22. In terms of infrastructure, hardware such as the availability of computers did not seem to be a problem. For basic IT facilities, irrespective of organization size, it was common for agencies to outsource the IT maintenance / installation work. Even for agencies with IT staff, remote access plus outsourcing of maintenance service was often used to deal with problems in service units across the territory.

23. One issue that had been highlighted during the interview was that many of these facilities were acquired at different phases of the agency's IT planning and development. Since it might not be feasible or cost-effective to synchronize the IT system in a short period of time, the differences in computer architecture might be a barrier for the agency in making coordinated IT planning.

24. NGOs were well aware of the benefits in installing a network to share resources. All NGOs interviewed had some form of network system in their work units though some were quite rudimentary, e.g. using 'my network places' for purposes of intranet network but not able to connect with systems in other locations. Medium and large size NGOs had relatively more resources to build up a more sophisticated system such as using LAN for information exchange and communication. Large organizations usually had their own intranet for sharing of files and had better control over the workstations / computers in their work units. Resources could also be deployed to maintain the systems.

<u>IT projects – opportunities and challenges</u>

25. IT projects were usually funding-driven and depended very much on the initiatives of staff members, especially for smaller agencies. Government funding was the primary source of financial support. Should funding be available,

installation / upgrading of the accounting and human resource system using IT applications were usually considered as priorities.

26. Maintenance of the IT systems and applications was a major concern for NGOs, in particular, small and medium size agencies. For larger organisations, they could usually deploy resources to finance maintenance or service fee, while, for smaller agencies, they often lacked both financial and human resources to maintain the system beyond the period supported by the funding source, let alone planning ahead for their long-term IT development.

27. To solve the problem of a lack of resources, some small agencies had used volunteers to help with their IT development, e.g. enlisting the help of students to design their website. However, these efforts did not seem to be sustainable because when the student left, they had no manpower to update and / or maintain the system.

28. Generally speaking, small NGOs had no professional IT staff and had to rely on their professional or other support staff happened to be IT-fluent to deal with the technical problems of their system. Needless to say, this kind of support was highly unstable. Furthermore, for smaller agencies without IT personnel, they would not have the experience to deal with vendors, such as preparing tender documents and writing up contracts. External consultation service was important to ensure successful development and implementation of IT projects.

29. For medium and large organisations, one IT personnel or a team of IT staff would be employed to take care of their IT systems and projects. Large NGOs also tend to have structure, involving senior management, IT personnel and sometimes board members, in the development and implementation of IT projects. However, turnover rate of IT staff tended to be high. IT sector in NGOs was usually underdeveloped and for IT staff, the environment was not very stimulating professionally. Staying too long would limit their market values in the business sector.

30. The lack of IT staff in agencies had hindered the long-term IT development of the agency as they did not possess the know-how to evaluate the agency needs and hence, limited their capacity to formulate IT plans that could synchronize with the business objectives.

Future visions

31. Recurrent funding on infrastructure and human-ware to facilitate long-term IT strategic plan in line with their business development was the major concern for all agencies interviewed.

32. Another common aspiration, especially for small and medium size NGOs, was on the need for consultancy services to assess their IT needs, make recommendations on future development and to help in the selection and assessment of vendors.

33. All NGOs interviewed expressed concern over the possibility of shared information should a client information system (CIS) be developed. The major issues were confidentiality, data rights and client consent.

34. NGOs' views on the establishment of core IT systems for welfare sector varied. Some small NGOs expressed the need for support in the provision of common core application systems for administration work such as accounting and human resource management. However, agencies with more sophisticated IT development preferred tailored-made application systems.

35. Some NGOs suggested that there was a need to establish a knowledge sharing platform in the welfare sector to exchange experiences in good practices, useful application systems and recent development in IT applications for service delivery.

Focus group interviews

Subvented NGOs

36. Eleven focus groups were conducted with 73 representatives from 51 subvented NGOs of various sizes. On average, 30% of all subvented NGOs have sent representatives to participate. This sample was able to provide a good coverage of all the subvented NGOs with a variation in IT sophistication. The following two tables illustrated the NGO size, level of staff and number of participants of the focus groups.

NGO size	Level of staff	No of sessions	No. of participants
NGO-L	Senior	2	16
	Frontline	2	12
NGO-M	Senior	2	16
	Frontline	2	12
NGO-S	Senior	1	5
	Frontline	1	7
	Senior / frontline	1	5
	Total	11	73

37. Number of subvented NGOs participated by size

NGO size	Total no.	No. of participants	%
L	36	18	50
M	71	19	26.8
S	63	14	22.2
Total	***170***	***51***	***30.0***

IT environment

38. Variations were huge in IT usage across NGOs. In general, large organisations had their own IT teams. Some were well-staffed, especially among those providing medical and education services at the same time. Staffing was also relatively stable with low turnover rate with these organisations. For medium size organisations, they usually had one IT technician, while small organisations usually

relied on their social workers having better IT knowledge to manage agency IT systems.

39. The funding model apparently determined the investment in IT development and staffing. Under the Lump Sum Grant (LSG) ambit, NGOs had to determine how they should allocate their resources. IT development, for some NGOs, was perceived as something that competed for the limited resources, which would better be deployed to direct frontline services. In the end, it depended very much on the perception and understanding of the leadership on how IT could benefit their service development when they made decisions about resources allocation.

40. The development of IT in NGOs, irrespective of organization size, usually started off with a need-based 'decentralised' model. Individual units might develop their own system when resources (both manpower and financial) were available. Therefore, even within the same organisation, IT sophistication might vary among different units. With further resource input from SWDF, the trend was to 'synchronize' the systems - going for more accuracy and comprehensive data management.

41. Many participants, irrespective of the size of the NGO, stated that their organization was still trying to catch up with upgrading the infrastructure of their organisation. For NGOs who had developed their system at an earlier stage, the computers and hardware were procured at different times and were not aligned to support some of the IT applications.

42. At the moment, IT projects often focused on improvement in administration, e.g. accounting and human resource system. Although a number of participants from NGOs serving young people and the elderly remarked the importance of using IT in enhancing direct service delivery, they also acknowledged that these might not be the right time since the agency might not be ready yet.

43. Participants from NGOs serving people with special needs stated that more resources should be put in narrowing the digital divide, e.g. in procurement of software to increase accessibility.

44. Nearly all the participants stated that their agency did not have a long-term plan for IT development. Projects were launched based on availability of funding and the IT readiness of the management. One of the problems this incurred was the lack of connectedness between different systems, e.g. Financial Management (FM) and Human Resources Management (HRM) systems.

Contribution of IT to service

45. Participants stated that with the rapid development of IT, the expectations of the clients were different. For example, some members might want to be able to register for interest classes on-line, or received automatic reminders for activities. IT could help reduce human error and improve public accountability.

46. The use of IT was also found to be useful in generating and analysing data for evaluating their service and for projection of service needs.

47. Some participants also commented that the use of social media could help in promoting and expanding their service, e.g. using Facebook to promote activities and internet to outreach to young people. However, staff needed to be aware of the updated IT development and resources were required to support their usage.

Experiences in developing and implementing IT projects

48. The most common issues mentioned by participants were the lack of recurrent funding for system maintenance and employment of IT staff. These had hindered the development of long-term plan for IT development and affected the sustainability and continuality of projects. For example, after the expiration of the contracted maintenance period, some agencies had no IT staff to maintain the system and it was left unused.

49. For agencies without IT staff, they had difficulties in communicating with vendors and knew what could be realistically expected from them. They were not able to specify their requirements in IT technical language and it often took them a lot of time to choose a supplier. Many NGOs entered into a project with high hopes and expectations, but only found out later that the performance of the applications they got were far from what they expected. Many projects were hastily completed upon the

due date of financial clearance, and some products were of limited or even no use upon completion. Some participants said that in the end, they had to lower their requirements. This long process also caused a lot of frustration to staff.

50. Some of the agencies had used the common applications developed by ITRC but found it difficult to meet their needs. From their experience, they found it difficult for one application to accommodate the diversity in the data parameters and logistics of different agencies. Moreover, this kind of application lacked flexibility. A change in administration process in one agency might result in a complex negotiation process before modification of the application was made.

51. IT readiness of staff was also an issue mentioned by most participants. For staff with little IT knowledge, it might take them more time to learn to use the new system. Many frontline staff insisted on using the old manual system although new IT system was available.

52. It was also expressed by many participants that although IT applications would enable a more efficient administration process, it might not necessarily mean less work for agency staff, especially at the beginning.

Critical success factors

53. Early involvement of the users in the planning stage of the IT projects was a common success factor mentioned by most participants. The IT application must meet the needs of the users. Furthermore, training must be provided to help staff in learning the new system.

54. Commitment of the management was also significant. To ensure that the project was carried out, the management should lay down a top-down strategic direction to guide its IT development.

Expectations and aspirations

55. The message of needing recurrent funding support for maintenance and incorporating IT staff in their staffing structure was very clear. It was suggested that

the current funding model be revised to allow NGOs to budget for continuous project management, maintenance service, and technical support.

56. For small and medium size NGOs, common core applications still had its attraction, especially for applications that might not involve too diverse logistics among agencies, e.g. online donation. For them, support in developing common core for the welfare sector plus customisation to cater for individual agency need would be helpful. It might save cost and agencies could benefit from shared expert knowledge.

57. However, for large NGOs that had already developed their own key administration applications, they had different views. For them, because of their large number of end users, any change would imply major impact on the work habits of the staff, and thus, more resistance. It had been suggested that the principle in developing common core applications should be having as little impact on the agency as possible, e.g. only for new development such as cloud computing.

58. The community cloud model (i.e. cloud computing services for welfare sector) had very good potential. However, the current SWDF did not encourage the use of cloud computing services because SWDF was currently given as a lump sum on IT projects. However, cloud computing typically involved recurrent and pay-as-you-use payment model.

59. Some kind of basic IT capacity was considered fundamental, e.g. internal networking for communication and knowledge exchange (intranet, LAN), and alignment of application systems within agency to form a data centre for service development and administrative efficiency.

60. Given the variations in IT sophistication of different agencies, most participants hoped to have a platform to share experience, best practices and to obtain update information on the most resent IT development.

61. Although there were IT vendors who were prepared to work with the welfare sector, some small NGOs found it difficult to identify these providers and hoped to have more support in contacting them for technical advice in preparing project applications.

62. Many participants expressed the need for more flexibility in the funding application. With the rapid development in IT, technical specifications put in the application form might already be outdated by the time the funding was approved. It would be useful if allowance could be made in this regard.

Stakeholders

63. Two focus groups had been conducted with stakeholders including 12 representatives from IT solution companies, professional body, and public body.

64. The general impression of stakeholders in working with the welfare sector was that NGOs were highly diverse in their IT needs and their work logistics. Their requirements tended to be highly specific. However, many stakeholders felt that communication with NGOs was affected by their lack of expert knowledge. They were not able to articulate what they wanted in a meaningful way. Some would just copy from specifications of various applications without consideration for their compatibility.

65. NGOs were also impressed to be rather lax in their project management. They were not very strict about their requirements and staff tended to have high expectations at the beginning but petered out towards the end.

66. Some of the issues identified by these stakeholders were: many NGOs did not have expert staff to manage their IT projects and used social workers instead, 'as if the social workers were omnipotent'. Besides, the hardware of many NGOs was rather primitive and might not be able to support more sophisticated systems. These NGOs might have the commitment to develop their IT system but lacked the knowledge and infrastructure to do so.

67. Furthermore, many NGOs were limited by the resources they had and IT development might not be high in their priority list.

68. The core problem was the lack of support in ensuring sustainability of the projects.

69. Another factor affecting IT development in the welfare sector identified by stakeholders was the commitment of the management. User involvement complemented by clear top-down directions clearly laid down by the management was essential.

Service users

70. Two focus groups with service users were conducted and 14 persons had participated, including the elderly, students, unemployed youth, people with visual impairment, hearing impairment, physical impairment and people with chronic illness.

71. Most of the participants appreciated the opportunities provided by NGOs in offering training courses for them to learn to use computers and use their knowledge to help others (becoming a tutor after completing their own training).

72. This was particularly important for disabled persons since the computer and the internet had enabled them to connect with the outside world, empowering them to take more control of their life and raising their self-esteem. For them, this was a significant gain in their social capital.

73. However, most commented that computers available for service users in the agency were not enough. In addition, many of them were outdated and were very slow. Participants also revealed that NGOs often did not have enough resources to purchase enough software for computer classes.

74. Another difficulties mentioned by participants with impairment was the difficulties in recruiting teachers for computer classes who were familiar with their needs, e.g. software for people who were visually impaired.

75. All disabled participants stated that support for accessibility was not adequate. Software catered for their special needs were too expensive and there were not enough sign language interpreters to enable them to learn to use the internet.

Non-subvented NGOs

76. Although non-subvented agencies were not within the scope of the current study, to obtain a full picture of the IT scenario of the welfare sector, a focus group had also been conducted with non-subvented agencies.

77. Eight representatives from seven agencies had participated. One non-subvented agency had submitted their views via SWD.

78. In general, the IT development of participating non-subvented agencies depended on the service nature and the resources available. Except for one NGO with training as their core business, the other participating NGOs did not have in-house expertise to develop and maintain adequate ICT infrastructure and staff skills.

79. Funding for IT for these organisations was usually one-off and largely equipment-focused. This had affected their long-term plan for IT development in the agency.

80. Although most of the participants stated that the use of IT was an essential component in service delivery, e.g. as a major means in contacting members, promotion of services, they had difficulties in providing adequate maintenance for the system. Some of these agencies would use volunteers or staff with IT knowledge to support the management and maintenance of their IT system. However, this was only on an ad hoc basis and could hardly fit in the tight work schedule of their professional staff.

81. The organisation culture was also an issue in their IT development. Without a clear strategic direction and staff training, some staff with limited IT knowledge might have a higher resistance in adapting to using IT at work.

82. For IT applications for administrative purpose, they usually used non-propriety systems and some would use open source e.g. Google Apps. Partnership with the private sector was also another approach used by these agencies to address their IT needs.

83. IT support for upgrading infrastructure, development of propriety systems, training, and technical support were their major concerns. In addition, standardising

statistical output for different funding bodies was considered helpful for more cost-effective administration. Strategies for the welfare sector would help to set out the direction for IT development for agencies and developing a platform for information sharing would facilitate experience sharing.

Case studies

84. Ten IT projects that were funded by the BIP or the SWDF were selected for case study. The criteria for selection were projects with a budgeted cost of at least $100,000 and those that have completed or at a later stage of project development. In addition, cases of different nature under NGOs of different sizes / services were selected to maximise the scope covered.

85. A list of 193 projects that cost over $100,000 (including 28 BIP and 151 SWDF projects) were provided by SWD for selection. Among them, projects that were launched by the nine NGOs selected for in-depth interviews and those with the proposed completion date fell outside the period July 2011 to December 2011 were excluded. Twenty-two cases with variations in project nature and NGO size were shortlisted and their application form reviewed. Among these shortlisted cases, ten were chosen to cover a variety of project nature and NGO size. Invitation to participate was sent to the respective NGO by mail. Agencies that declined our invitation were replaced by another project of similar nature by a NGO of similar size. The final ten cases covered a range of project nature including administrative management, service management, knowledge management and membership management. Among them, five were from small NGOs, one from medium NGO and four from large NGOs.

<u>Funding as an incentive in IT development</u>

86. The availability of funding for IT development was critical for agencies to evaluate and assess their IT capacity and needs with the view to develop IT projects. Although some agencies, especially those larger in size, had started to develop application systems using resources other than the BIP and SWDF, a number of these projects tended to be short-lived due to lack of continuing professional support. This was especially problematic for small and medium size agencies that tended to use pro bono service from students or IT professionals on a task basis. Therefore, if the system encountered any problem, there were little technical and maintenance support. For many of the agencies, the availability of the SWDF was a good opportunity for

them to review and build up their IT capacity. In most of the cases, either in-house IT staff team had expanded or a project manager was employed to cater for the increasing demand for IT development

Increasing awareness on the benefits of strategic planning

87. Except for a few large agencies where the management had higher IT awareness and their IT team was more sophisticated, the focus of the agency was on the successful development and implementation of the project with little attention on the comprehensive IT development of the agency. However, awareness on the need for long term strategic planning was definitely higher, especially among larger agencies. Many have stated that this would be their objective for the next phase of development.

Top down versus bottom-up planning

88. The cases studied were mainly projects to upgrade and/or replace the existing system which was considered outdated, slow and could no longer meet their needs. Some of the new systems were introduced to replace a previously manually done work procedure, e.g. leave application. Once the decision to apply for funding was made, the initiation in compiling the project proposals usually came from the middle management since they were more aware of the needs of the frontline staff.

89. Except for some large agencies with a regular IT-related committee / sub-committee, NGOs would usually set up a temporary project-specific committee to monitor its progress. Usually, different levels of staff, some with members of the Board, would be involved.

90. Since some of the new systems may involve new technical skills or a change in workflow, staff may need time to get acquainted with the system. This was especially difficult for staff not possessing the necessary IT skills. In addition, during the transition period, it might even take more time for the staff to accomplish the same task than using the old system. It was generally agreed that early involvement of the end users was critical in facilitating staff buy-in. First of all, they would be able to tell the vendor what the existing workflow and what their needs were. Secondly, this would avoid difference in expectation between professional staff and

frontline staff, as some frontline staff might not understand why they had to change their way of working.

Supporting the adoption of new system

91. To deal with the possible resistance from staff during the transition from the old to the new system, the level of support and leadership provided by the management in ensuring its implementation varied. Training of end users was the most common support and some larger agencies would also provide hotline services. In terms of ensuring utilization of the system, some would made relevant policies and others would allow parallel usage of the old and new system. In general, it seems that a clear direction from the management and the early involvement of the end users were both important ingredients for the smooth implementation of IT projects.

Lack of IT knowledge as a major handicap

92. Most small and even some medium-sized NGOs usually had little information about the operations of IT vendors and what they could realistically expect from them when they started an IT project. Articulating their needs in IT language and dealing with vendors were usually the most difficult part and was extremely time-consuming especially for small NGOs, which usually did not have IT professional staff to support them. On the other hand, IT vendors quite often had no prior experience in working with the welfare sector and had difficulties in understanding their needs.

93. The gap in IT knowledge had also posed difficulties in preparing funding application. For NGOs who had no professional support, the technical information required in the application form was a challenge. In this regard, some agencies would use consultation service or had to work with SWD closely to finalize their application submission.

94. Further analysis of the cases would be conducted upon completed of the data collection and compilation of case information.

Questionnaire survey with agencies

95. A structure questionnaire designed for senior management of subvented NGOs was mailed in May 2012 to all 170[28] subvented agencies that provided direct service (Appendix II: Tables on questionnaire survey for agencies)

96. The number of questionnaire successfully enumerated was 109, occupying 64.1% of the population, with higher response rate from larger NGOs.

Size	Population	successfully enumerated	%
Small	63	26	41.3
Medium	71	47	66.2
Large	36	36	100.0
Total	170	109	64.1

97. To make adjustment to the possible bias resulting from the variation in response rate for NGOs of different sizes, overall figures for the all NGOs in the analyses of this study were weighted.

Profile of agencies

98. For small NGOs, the number of service units was usually less than seven; medium size NGOs had less than 20 units and large NGOS had over 20 service units. Across all agency sizes, services for the elderly were among the most common services provided. Apart from elderly services, services for family and child welfare were common among small NGOs, services for young people were common among medium size NGOs and rehabilitation services for large NGOs. (Table A1).

99. Most small and medium NGOs had less than 50 full-time Registered Social Workers (RSW); and a majority of large NGOs had 201-300 full-time RSW. For other non-social work full time staff, over 85% of small NGOs and around 45% of medium size NGOs had less than 50 staff. For large NGOs, over half had 501-1000 non-social work full-time staff (Table A3).

[28]There were 171 subvented agencies in 2011-12. One of them, the Hong Kong Council of Social Service, does not provide direct service and is not included in the population.

100. Overall, 92.9% of the agencies had their own websites, with smaller NGOs being less likely to have their own agency website (Table A3).

IT strategies / guidelines

101. It was not common for agencies to have IT related documents such as IT policies, standards on infrastructure, IT security measures and guidelines for accessibility. The most common (although still comprised less than half of the NGOs) IT related document laid down by NGOs was on infrastructure (41.8%), followed by 37.1% on management of data security incidents. Only less than 20% (18.8%) of NGOs had written documents on directions in IT development (Table A4).

102. The smaller the agency, the less likely they were in laying down IT related strategies / guidelines. However, for those agencies that had such documents, irrespective of organisation size, the focus was on standards in infrastructure and measures to protect data security. For small and medium size agencies, the least likely IT documentation was on direction in development (Small: 14.3%; Medium: 12.7%); while it was least likely for large NGOs to have documentation on website accessibility (Large: 33.3%) (Table A4).

103. Many small and medium size NGOs stated that they did not have and had no future plan to set up strategies / guidelines on areas such as directions in IT development (Small: 66.7%; Medium: 63.4%); website accessibility (Small: 66.7%; Medium: 57.7%); and standards in infrastructure (Small: 55.6%; Medium: 53.5%) (Table A4).

104. Nearly 45% of the NGOs had their decisions on IT related matters made by the agency head, followed by IT professionals (31.5%). Only less than 30% of the NGOs had their board members and / or sub-committee members involved in the decision making process (29.1%). Among agency heads involved in making decisions on IT related matters, only around 14% had some IT qualifications. For agencies with Board members and / or sub-committee members involved, on average, around 60% of them had IT qualification. Again, larger agencies had better chance of enlisted support from professionals with relevant qualification (Small: 36.4%; Medium: 66.7%; Large: 83.3%) (Table A5). Small NGOs tended to have a comparatively higher involvement of the board members / sub-committee members in IT related matters, sharing the decision with the agency head (board / sub-committee members: 30.6%; agency head: 33.3%), whereas for medium and large NGOs, the decision laid more on the agency head (medium: board / sub-committee members 19.1% & agency head 46.8%; large: board / sub-committee members: 46.2% & agency head 61.5%) (Table A5).

However, among agencies with decisions involving board members and / or sub-committee members, only about 60% had IT training. Larger agencies were also in a more advantageous position. The larger the agency size, the more likely they have board / sub-committee members with IT background (Small: 36.4%; Medium: 66.7%; Large: 83.8%) (Table A5)

105. When asked about the degree of importance in objectives of the IT strategies / guidelines, strengthening the effectiveness and efficiency in agency administration and management was reported to be very important by 57.6% of the NGOs; followed by enhancement of service effectiveness and efficiency (53.5%) (Table A6).

106. Medium and large NGOs tended to place similar importance to both service and administrative effectiveness and efficiency (Medium: 53.5% for both service and administration effectiveness; Large: 80.6% for both service and administration effectiveness). More small NGOs reported administrative effectiveness and efficiency as very important as compared with that of service effectiveness and efficiency (Service 39.7% & administration 50.8%) (Table A6).

IT applications

107. The most common IT applications currently used were financial management systems (FMs) (80.6%), followed by intranet (70.6%). This was similar regardless of the size of the agency. It was also noted that across all agency size, the least likely use of IT was on direct service provision (Small: 0%; Medium: 11.3%; Large: 11.1%). Furthermore, for those who had not used IT for direct service, around half had no plan to do so in the next three years (Small: 55.6%; Medium: 59.2%; Large: 41.7%) (Table 7A).

108. The most common application NGOs planned to launch in the next three years was the human resource management systems (HRMs) (21.2%) and knowledge management systems (KMs) (21.2%), followed by membership information system (20.6%) (Table A7).

109. In regard to the level of satisfaction to agency IT environment, 75.4% of the NGO were very satisfied or fairly satisfied (7.2% very satisfied; 68.2% fairly satisfied) with the infrastructure, 55.2% (0.9% very satisfied; 54.3% fairly satisfied) with the applications for management and administration and 46.3% (1.8% very satisfied; 44.5% fairly satisfied) with applications for service provision. However, a higher percentage of medium size NGOs felt a bit more dissatisfied in their applications for management and administration and service

provision (administration: fairly satisfied 42.6% & fairly unsatisfied 44.7%; service provision: fairly satisfied 38.3% & fairly unsatisfied 42.6%) (Table A8).

IT support

110. Less than half of the NGOs (48.8%) had qualified IT personnel working in the agency in the previous year. The smaller the agency, the less likely they had employed a qualified IT staff (Small: 30.2%; Medium: 42.3%; Large: 91.7%) (Table A9).

111. 70.6% of the agencies had non-qualified IT personnel taking up IT related responsibilities. Among them, most had to take up tasks related to management and support (51.8%) and maintenance (42.6%) of infrastructure (Tables A11 & 12).

112. 90% of the NGOs had used external IT support in the previous year. The smaller the NGO, the less likely to use outside support (Small: 81%; Medium: 93% & Large: 100%) (Table A13). Hardware vendors were the most commonly used outside support (10.5% every time & 28.8% most of the time). This was followed by software vendors (9.8% every time & 20.9% most of the time) and IT consultant companies (7.2% every time and 20.9% most of the time). Nevertheless, small agencies reported to be least knowledgeable in IT support vendors. 17.6% said that they did not know about ITRC, and 13.7% did not know any hardware vendors or IT consultancy / IT solution company (Table A14).

113. Most of the NGOs reported that support to hardware maintenance and software applications and update were very / fairly sufficient (hardware maintenance: very sufficient: 8.2%; fairly sufficient 52.4%; software applications and update: very sufficient: 5.9%; fairly sufficient: 50.6%). What they found most insufficient was the lack of professional and technical support for agency IT development and implementation (fairly / very insufficient: 55.3%) and maintenance for management and administration applications (fairly insufficient: 38.8%; very insufficient: 16.5%). Insufficient professional and technical support was felt more by small and medium size agencies (Small: fairly insufficient: 41.3%; very insufficient: 14.3%; Medium: fairly insufficient: 45.1%; very insufficient: 21.1%; Large: fairly insufficient: 22.2%; very insufficient: 11.1%). In addition, as compared with other NGO size, a higher percentage of medium size agencies reported insufficiency in IT support in all areas asked in the questionnaire survey. (Table A15).

Accessibility

114. 58.2% of the NGOs served users with special needs in using computers (Table A16) and 48.2% of the NGOs had provisions for these target group (Table A17a). Among these provisions, the most common was accessibility training (96.6%) but only 27.6% had measures for website accessibility (Table A17b).

Human-ware

115. Almost all of the NGOs had provided IT training for their staff in the previous year (97.5%). Common training provided included word processing (68.8%) and on applications for management and administration (63.4%) (Table A19).

116. 61.8% of the NGOs had training policy in IT for staff. The most common being subsidising staff to attend IT courses (90.5%). Most large NGOs (93.8%) also launched their own IT training courses (Table A20).

117. Many NGOs reported that training for IT was insufficient (fairly / very insufficient: 55.3%). Medium size NGOs tended to be least satisfied (only 29.6% felt fairly sufficient as compared with 50.8% for small NGOs and 63.9% for large NGO) (Table A21).

IT projects

118. SWDF and LSG were the major sources of capital cost for IT projects (Table A22).

119. For recurrent cost, the major source was from LSG followed by donation (Table A23).

120. Critical success factors for IT projects identified by NGOs as very important were: project meeting the administrative and management needs of the agency (59.4%); adequate technical support before / after implementation of the project (58.2%); user friendliness (56.5%); adequate resources for maintenance (50.6%); and staff involvement (50%) (Table A24).

121. For small agencies, user friendliness ranked highest (55.6%); for medium agency, the option most chosen was project meeting the administrative and management needs of the agency (59.2%) and for large agencies, the most important being acceptability to staff and staff involvement (91.7%) (Table A24).

122. 75.9% of the NGOs supported the need for partnership among themselves to development certain IT projects. Views on the type of applications using this approach differed among different agency size. For small and medium agencies, development of core administration system and core CIS were identified by most as appropriate for partnership (Small: Core administration system & core CIS 75%; medium: core administration system 78.9%); whereas for large NGOs, the areas chosen by most were knowledge exchange system and e-service system (68.8%) (Table A25).

Expectations on IT strategy for the welfare sector (the Strategy)

123. Half of the NGOs (50.6%) ranked providing sufficient hardware / software for staff as the highest priority in their expectations. Installation of intranet information system was identified as the 2nd priority (32.4%) and 3rd HRMs (19.4%) (Table A26). No significant difference was found among different agency sizes.

124. In response to the possibility of developing a cross agency CIS, privacy issue was the concern reported by almost all NGOs (70% very important; 29.4% fairly important). The second most common concern expressed was the need for a clear guideline on accessibility to information (54.1% very important; 43.5% fairly important) (Table A27).

125. When asked if they agreed to launching a shared CIS in the next three years, 59.1% somewhat disagree or strongly disagree. Many reported their concerns on management of confidential data (77%) and the cost (67.6%) and manpower required (68.6%) (Table A28).

126. In general, a higher percentage of agencies were unfamiliar with the Strategy. Only 10.6% of the agencies reported to be very familiar with the strategy regarding to the improvement of infrastructure to enhance work efficiency and internal administration. Around half of the agencies were only fairly familiar with the strategy on encouraging continuous and expanding use of email and internet websites for communication. The least known strategies were the development of shared-use and common applications and laying down policy statements to provide vision, mission and value on human-ware development (do not know very well: 59.4%; do not know at all: 19.4%). In each of the strategies, at least 13% of the agency reported that they were not aware of them at all (Table A29).

127. The strategy most agency found helpful was improvement on infrastructure to enhance work efficiency and internal administration (very helpful: 25.9%; fairly helpful: 49.4%).

Development of shared-use and common applications was considered as the most unhelpful (fairly unhelpful: 28.8%; not helpful at all: 4.7%) (Table A30).

128. In terms of the importance of IT strategy for the welfare sector, providing guidelines for prioritisation of resources was considered very important by 39.4% of NGOs; and 70.6% found providing a direction in IT development in the welfare sector fairly important (Table A31).

129. SWD and agency management were considered by most NGOs as playing important roles in IT development. Over 90% of the NGOs considered SWD having an important role in providing a direction in IT development for the welfare sector (94.7%), laying down relevant standards and guidelines (90%), and provide subsidy and resources (98.8%). Most NGOs (89.4%) considered SWD important in providing / coordinating a sharing platform for the welfare sector, and 80% on narrowing digital divide (Table A32).

130. For agency management, 91.8% considered them important in providing a direction in IT development for the welfare sector, 97.6% for laying down relevant standards and guidelines. Around 80% of the NGOs considered hardware and software vendors playing important roles in providing / coordinating technical support and relevant training (Table A32).

131. About one-sixth (16.5%) of the NGOs were not aware of the work of the ITRC and 57.1% do not know the work of OGCIO (Table A32).

Questionnaire survey for service units

132. Apart from the questionnaire for senior management, another questionnaire was designed for unit level staff. A total of 1904 questionnaires were sent to subvented service units run by of subvented NGOs with more than one unit. For NGOs with only one service unit, only the agency questionnaire was sent. A total of 922 unit questionnaires had been successfully enumerated as at 18 July. To make adjustment to the possible bias resulting from the difference in response rate from units of individual agencies, the dataset was weighted according to the percentage of units responding in each responding NGO. (Appendix III. Tables on questionnaire survey for units)

133. Among them, 47 units were from small NGOs, 161 from medium NGOs and 714 from large NGOs[29].

IT environment & communication

134. Overall, only around half of the responding units had their own websites (50.2%) (Table U1).

135. The average number of social work staff in the unit was 5.5 for full-time staff and 1.2 for part-time staff. For other non-social work staff, the average of 25.1 full-time and 4.1 part-time staff (Table U2). In terms of computer ratio, the overall scenario was still far from ideal. Only 40.8% of the responding units had reached the ratio of one computer per staff needing to use computer. Interestingly, units of small NGOs seemed to be most likely to reach this ratio (53.7%) (Table U3).

136. The average number of computers for service users placed in service units was 6.8/ (Table U4).

137. Around 80.9% of the units had some form of intranet (Table U5). Among them, LAN was the most common (79.8%), followed by 38.9% using WiFi for intranet connection (Table U6).

138. All responding units used Windows Operation Systems (OS) and only a few also used Mac OS (6.4%). Open source OS was rarely used (4.3%) (Table U7).

[29] The weighted sample sizes were 70, 247and 639 service units for small, medium and large NGOs respectively.

139. The newer version of Windows OS, i.e. Windows 7, was used by 68.7% of the responding units but the most commonly used version was Windows XP (77.7%) which was an older version put in the market in 2001 (Table U8).

140. For word processing, over 604.1 of the responding units still used the older versions of MS Office (2003 or earlier). A higher percentage (nearly 71%) used MS Office 2007 and the newer version of MS Office 2010 was used by only about one third of the responding units (36.7%) (Table U10).

141. In terms of software for administrative functions, general software offered in the market (probably EXCEL) was the most common software used for financial management for small and medium size NGOs (Small: 53.4%; Medium: 38.1%; Large: 40.5%). Among all NGOs, 31.1% also used proprietary FM system by vendors. The larger the NGO size, the more likely they used tailor-made FM system (Small: 1.7%; Medium: 28.5%; Large: 33.0%). Only13.7% NGOs developed their own FM system internally and it was also not common for units to used FM system offered in the market (8.1%). 6.3% reported that they did not use any application / software (probably still manual system) for financial management (Table U11).

142. The use of IT for HRM was less common especially among small and medium size NGOs. Generally applications (likely EXCEL) were most common (28.5%), especially among small NGOs (Small: 50.9%; Medium: 27.3%; Large: 27.0%). Apart from general applications, large NGOs were more likely to use proprietary and in-house developed HRM systems (proprietary HRM: 22.2%; in-house developed: 15.2%). 16.4% of all responding units said that they did not use any IT application for HRM purpose, among them, the highest percentage were units of small NGOs (41.0%) (Table U12).

143. Over 60% of units from medium NGOs and 75% from large NGOs said that they were using some kind of software for information security but only around one third of units from small NGOs reported so (Table U13).

144. Overall, responding units were satisfied with the infrastructure (12.2% very satisfied; 69.4% fairly satisfied), the applications for management and administration (6.8% very satisfied; 57.7% fairly satisfied), and applications for service delivery (6.0% very satisfied; 59.2% fairly satisfied). However, there were variations among units from various NGO size. For units of small NGOS, only around 37.6% found the administrative application fairly satisfactory and they were also not quite satisfied with the applications for service delivery

(42.8% fairly unsatisfied compared with less than 20% among small and medium NGO units) (Table U15).

145. Broadband connection was most common internet connection (90.5%) among all responding units, and leased line came next for units of large NGOs (8.1%). 13.6% of units from small NGOs used WiFi which was the highest in percentage among NGOs of all sizes (Table U16).

IT applications used

146. Overall, about half of the responding units used some IT systems to collect service user information (47.3%), but this was rare among small NGOs (Small: 16.7%; 37.7%; Large: 52.0%) (Table U17). Among them, proprietary system from vendors were most common (Small: 20.8%; Medium: 63.9%; Large: 47.3%), followed by in-house developed system (Overall: 30.4%. Small: none; Medium: 9.2%; Large: 34.9%) (Table U19).

147. For units that used CIS system, the most common purpose was for administration (84.4%). Preparing statistical reports for funders (52.4%), producing records on intervention (54.9%) and case-based internal information sharing (49.1%) were also reported (Table U20).

148. Other more common IT systems used at the unit level were membership systems (69.4%), activities enrolment systems (45.4%) and KM systems (35.9%). Applications for direct or indirect service delivery were less common (7.0% for direct service provision and 27.9% for indirect service provision) (Table U21).

Support in IT development

149. Having IT trained staff at the unit level was not common. Among all responding units, only 18.3% had on-site IT trained staff, and the highest percentage was units of medium size NGOs (38.3%) (TableU22). On average, those units had one IT trained staff on site (Table U23).

150. Among responding units, it was much more common to have non-IT trained personnel supporting centre's IT systems (66.2%) (Table U24). These non-trained staff was mainly involved in infrastructure management / support (72.2%) (Table U25).

151. Responding units received very little outside help to deal with technical problems of their IT systems (only about 10-20% across all sizes of NGOs had such kind of support every time or most of the time). The most common source of support was to use service of hardware vendors, but still 33.8% never used their service and 10.1% did not know such company. Over half of all responding units had never used the service of IT consultancy or IT solution company (50.8%), and 59.4% had never employed the service of ITRC. Moreover, 17% of the responding NGOs did not know about ITRC. (Table U26).

152. Responding units were more satisfied in infrastructure support (hardware and software, intranet) than other aspects of support (update of webpage / website, maintenance of administrative applications, IT development and implementation) although the percentage was still only half or less than half (Hardware maintenance: 2.9% very sufficient; 59.4% fairly sufficient, software application and update; 1.8% very sufficient; 44.7% fairly sufficient and maintenance for intranet: 2.9% very sufficient; 46.5% fairly sufficient) (Table U27).

153. As for the level of satisfaction of service users, overall speaking, only a small percentage had expressed dissatisfaction towards various IT infrastructure and applications of the units of large NGOs (7% or less). However, around 10% of units of small and medium NGOs reported that fairly manly users were not satisfied with their software application and its update and 10.8% of units from medium size NGOs reported similar case for their hardware maintenance (Table U28).

154. Generally speaking, around half of the responding units had written documents on measures to manage incidents regarding data security (53.4%), standards in infrastructure (50.8%), standards in the protection of IT system (50.4%), and standards in the protection of data integrity (47.7%). For other aspects of IT usage, including directions in IT development, website design, and responsibly in data security, only around one third of all responding units had written guidelines. These documents were most common among units of large NGOs and only around 10% or less of units from small NGOs had such documents (Table U29).

Accessibility

155. 46.3% of the responding units had service users with special needs in using IT (Table U30). Among these units, around 40% had some measures to cater for their needs (Table U31). The most common being provision of training classes (89.9%), around one third had special device / software for this group of clients (32.1%) but attention to improve website accessibility was not common (11.2%) (Table U32).

156. For general service users, 53.2% of the responding units had some measure to enhance their use of IT, and installing computing facilities was the most common (93.4%), followed by provision of computers and peripheral equipment (42.6%); but having special offers in buying facilities for peripheral equipment was rare (6.6%) (Table U34).

Human-ware development

157. Around 80% of responding units had provided IT related training to staff (Small: 42.6%; Medium: 43.8%; Large: 42.6%). The most common training provided for staff was on word processing (65.7%), followed by 48.0% on management and administrative applications and 33.9% on proprietary administrative applications. Other courses were less common (Table U36).

158. For knowledge adequacy among staff members responsible to use the IT systems, knowledge on word processing was felt to be most sufficient (8.6% very sufficient, 76.4% fairly sufficient). Only around half of the responding units felt that knowledge in using administrative applications were sufficient (2.6% very sufficient; 54.7% fairly sufficient). Areas that were more frequently reported by responding units as insufficient were knowledge on recent IT development (fairly insufficient: 46.7%; highly insufficient: 20.5%), knowledge on IT usage in the Welfare Sector (fairly insufficient: 45.3%; highly insufficient: 17.8%), and knowledge on IT security (fairly insufficient: 42.6%; highly insufficient: 16.3%) (Table U37).

159. Around 70% of the responding units had some form of incentive policies for staff members to take IT training. The larger the NGO, the more likely they had these incentives (Small: 50.7%, Medium: 64.0%, Large: 71.9%). Among them, the most common was to provide subsidy (Small: 73.1%; Medium: 83.7%; Large: 57.2%). Other incentives varied substantially among NGOs of various sizes. About one third of small and medium size NGOs allowed paid leave or had their own in-house training; whereas over half of the large NGOs gave paid leave and about three quarters offered in-house training (Table U38).

160. Less than half of all responding units felt that the IT training for staff was very or fairly sufficient (1.9% very sufficient; 44.6% fairly sufficient). However, huge discrepancy was noted among small NGOs. Only 12.2% found IT training fairly sufficient and none felt them very sufficient (Table U39).

IT projects and success factors

161. For IT applications used in the units, the most common being intranet (80.6%), FMs (69.9%), HRMs (57.5%), and membership information system (57.4%). Among responding units without these applications, an average of around 60-70% of the responding units did not know the plans for these developments (Table U40).

162. For joint development of IT applications among agencies, 70.9% of large NGOs supported this idea but 60.2% of units from small NGOs and 56.9% of units from medium NGOs found them necessary. For units, which felt the need for partnership, around 75% agreed to the idea of developing core administrative system and core CIS for the welfare sector; 71.1% agreed to the idea of developing core knowledge exchange system; 65.5% supported the idea of joint development in e-service and 59.5% on e-donation (Table U41).

163. Major source of IT projects capital cost and recurrent cost was from LSG (capital cost: 20.7% all of them and 31.8% most of them; recurrent cost: 53.5% all of them and& 27.5% most of them) (Table U42 & U43). Apart from LSG, another major source of capital cost was the SWDF (4.2% all of them; 24.2% most of them). Some units supported their recurrent costs by means of donation and charity fund (donation: 5.1% all of them, 6.4% most of them, charity fund: 2.8% all of them; 7.5% most of them). (Table U43).

164. For success factors in implementation of IT projects, almost all of the respondents reported meeting the administrative needs as very / fairly important. In fact, for all items, over 90% of all responding units had identified them as very / fairly important. When only 'very important' was considered, the factor chosen by most was user friendliness (54.2%), followed by having adequate technical support before / after implementation of the project (52.7%). 51.5% felt that 'adequate resource for maintenance after implementation of the project' was very important. (Table U44).

Expectations and aspirations

165. When asked about their expectations on IT strategy for the welfare sector, infrastructure for staff members came first (67.2%) and intranet came in far second (15.3%) (Table U45).

166. For considerations in introducing common CIS, the most important consideration chosen by most units was protection of the privacy of the service users (73.8%). The next inline was having guidelines on whom and how these data can be accessed (58.8%), client consent was also considered very important by half of the units (54.1%). The potential of

using this system to reduce the risk in abusing the service was considered to be relatively less important (only 29.1% of the units found this very important) (Table U46).

167. Overall speaking, around half of the responding units agreed to share client information across welfare sector. For those who disagreed, the major concern was the management of confidential data (Somewhat disagree: 68.5%; strongly disagree: 61.4%). (Table U47).

168. Knowledge on the IT strategy for welfare sector was not high. The most commonly known were strategies concerning 'improvement in infrastructure to enhance work efficiency and internal administration', and 'encourage continuous and expanding use of email and internet websites for communication' (about 50%). Knowledge on other strategies were more limited, around one third had knowledge on 'more emphasis on development IT applications to enable service delivery' and the rest of the strategies were known to less than 30% of the responding units (Table U48).

169. 'Improvement in infrastructure to enhance work efficiency and internal administration' was identified by a majority of the units as very helpful (21.0%) or fairly helpful (53.5%). Other strategies considered by most as very / fairly helpful were: 'Encourage continuous and expanding use of email and internet websites for communication' (very helpful: 17.6%; fairly helpful: 55.1%); 'More emphasis on developing IT applications to enable service delivery' (very helpful: 15.3%; fairly helpful: 55.7%), 'develop IT strategy suitable to their agency and at their own pace' (very helpful: 16.1%; fairly helpful: 50.1%), and 'laying down policy statements to provide vision, mission and value on human-ware development' (very helpful: 10.6%; fairly helpful: 52.1% (Table U49).

170. Generally speaking, responding units placed high importance on the IT Strategy for the welfare sector. 80% or more felt all the items very / fairly important except for the item 'sharing service user records across sector' (very important: 15.3%; fairly important: 62.0%). When only 'very important' was considered, more units had chosen 'provide guidelines for prioritisation of resources' (28.5%), 'help to improve service effectiveness' (25.1%) and 'providing a direction in IT development for the welfare sector' (18.5%) (Table U50).

171. In general, SWD and agency management were considered playing important roles in offering direction and support for IT development. Over 80% of the responding units stated that SWD should play a very important role in 'providing subsidy and resources' (88.4%); 'provision / coordinating of sharing platform in the welfare sector' (84.4%) and 'provide a

direction in IT development of the welfare sector' (83.0%). Agency management was very important in giving direction (83.7%), laying down relevant standards and guidelines (78.8%), and providing training (70.7%). Hardware / software vendors and consultancy companies were considered as very important to provide technical support (73% - 79%) (Table U51).

172. About 40% of the units did not know ITRC and over 60% did not know OGCIO. As for their roles, for ITRC, 47.4 of the units felt that their roles should be providing a platform for sharing in the welfare sector. Around 25% felt that OGCIO should play the role of laying down relevant standards and guidelines and providing funding support (Table U51).

Other comments

173. The research team has also received a position paper from the ITRC, HKCSS. The ITRC was formed in 2002 in response to the first IT Strategy for the Welfare Sector with the objective of promoting and facilitating IT deployment in the Sector. Since then, its role has changed to a social enterprise providing total IT solution to the Sector. In gist, the paper stated that the Welfare Sector has invested considerable efforts and resources in IT development in the last decade and many agencies have already equipped with basic IT applications and systems. However, ITRC noted a strong need to strengthen support to NGOs to enable them for further development and capacity building. These included financial support to enable long-term IT planning, nurture and develop IT professionals in the Sector, continuous efforts to bridge the digital divide and the need for regular review of the Strategy.

IV. ANALYSIS AND DISCUSSION ON THE FINDINGS

IT Maturity and Readiness of NGOs

Since the formulation of the Strategy in 2001 and its last review in 2004, NGOs had obtained funding support under various schemes including the BIP Scheme, use of the Block Grant as well as the SWDF, to build up their IT capacity; in particular, infrastructure for application systems to be built upon and implementing application systems to meet their business needs.

2. With rapid advancement and extensive use of IT in the society, the welfare sector was more aware of the potential benefits of embracing IT in administration, communication and service delivery. Besides using IT in the day-to-day operation, the NGOs aspired to continue their IT development to enhance work efficiency, compile timely and accurate management information for evidence-based programme planning, achieve a higher level of accountability, as well as to meet the increasing demand from service users for more convenient electronic services and facilities to enhance digital inclusion for the underprivileged.

3. Most NGOs, irrespective of their sizes, accorded top priority to the provision of sufficient IT facility to staff. As gathered in the Review, staff of the service units of NGOs had all been provided with computers to support their daily work. Over 40% of the units were able to equip each member of staff requiring computer at work with one for their own use on-site. Another 45% shared one among two to three members of staff.

4. The sophistication of the systems used varied. The older version of Windows Vista was still used by around 30% of the units and over 60% were using the 2007 or an earlier version of MS Office. One of the issues revealed in focus group interviews was the piecemeal approach for development of their IT systems. The timing of which was usually determined by resources available. Many agencies were not able to make the necessary upgrade on their operating systems to accommodate new technologies.

5. Generally speaking, large NGOs were more resourceful and advanced in terms of provision of IT equipment, use of application systems, IT management and support as compared with the medium and small ones. For example, intranet was set up in around 90% of large NGOs but only in about 60% of the medium and small NGOs. Intranet was also in

place in 82% of service units of large and medium NGOs, and only in 60% of the service units of the small NGOs.

6. Apart from building an IT infrastructure, NGOs generally regarded the development and integration of application systems as their next important IT needs. The majority of the NGOs were using administrative IT systems to support their corporate operation, such as financial management systems. In service delivery, nearly half had some kind of systems to help manage their client information such as membership and enrollment systems. Almost all NGOs and about half of the service units of NGOs had built their own websites for information dissemination although most did not comply with the prevailing web accessibility standards. Currently, very few NGOs used IT systems in direct service such as e-counseling or social media applications, which was an area some NGOs intended to adopt for improvement and expansion of their services. Use of new technologies like cloud computing and mobile applications were still uncommon in the welfare sector.

7. Views on the possibility in developing common core applications for agencies with similar requirements were diverse. Apparently, some kind of joint collaboration, e.g. community cloud computing, could be very suitable for small NGOs. However, NGOs might have very different expectations of such systems. The experience of the previous Core Application Development Projects (CAP) should be consolidated to find out a more viable solution. For example, ORACLE was used in developing the HRM and FM systems under CAP and the systems were designed for large business with a thorough audit trail and required structured workflow. This might not suit the needs of smaller NGOs, and not even larger social welfare organisations in Hong Kong. Furthermore, as basically the relevant customisations are owned by the ITRC, ORACLE would not support the migration to the newer version of the relevant systems.

8. The NGO's management and organisation culture played a key role in deciding the priorities in the use of resources in IT development. Large NGOs were much more likely to have procedures / guidelines on the technical standards and the handling of data security incidents. Such procedures / guidelines were only available in a small portion (20%-30%) of the small and medium NGOs. For large to small NGOs alike, IT development was seldom planned strategically to tie in with their business objectives, but rather driven by the availability of resources and IT expertise.

9. Since the establishment of SWDF in 2010, NGOs had taken the opportunity to improve their IT capability by implementing a lot more IT projects than before. Under the

BIP Scheme (2001 to 2009), a total of 29 IT-related projects were implemented by 24 NGOs[30]. Whereas, in the first phase of the SWDF from 2010 to 2012, 233 IT projects were approved for implementation by 113 NGOs. Yet, some NGOs, especially the small ones, found the management of IT projects demanding and frustrating. Implementation and on-going maintenance of IT projects were largely taken up by IT vendors. The majority of NGOs reported that they needed more professional advice and support in IT development. In particular, small NGOs often expressed problems in the lack of knowledge about the engagement of IT vendors for the provision of the required services.

10. As to the employment of IT professional staff, it was more common in large NGOs (over 90%) than in small and medium NGOs (about one third). With few or no designated IT staff, NGOs always encountered difficulties in preparing user requirement specifications, tendering, negotiating with IT vendors, making modification to existing systems, and engaging user participation in the IT projects.

11. Overall speaking, it was observed that the disparities on the degree of using IT in the NGOs' business process and the levels of IT development among NGOs remained obvious. Although motivated in making use of IT in agency administration and service delivery, small NGOs in particular were more stringent in financial and human resources, inadequate in technical advice and support, and quite inexperienced in IT project management. With such limitations, they were lagging behind and had to overcome many challenges in catching up with their pace of IT development.

Experience from other Countries

12. Upon literature search on the formulation and implementation of IT strategy in overseas countries for reference, documents and international journals on IT development in England, Australia, USA, Canada, Singapore and Korea were collected and reviewed.

13. It was noted that in the public sector overseas, there were IT plans in providing better e-services, improving digital access and bridging digital divide. However, there was very limited experience about developing IT strategy for the welfare sector and especially for NGOs. We received no information from our networks of international scholars and practitioners in developing and studying information technology applications in the human/ social service sector.

[30] Excluding Core Application Development Projects funded also by the BIP Scheme and coordinated by the HKCSS.

14. While there was no obvious reason for the lack of IT strategy for the welfare sector overseas, one possibility was about the relationship between the government and the NGO sector in those countries. Hong Kong was, in many ways, very unique. The subvention system developed over decades was a kind of close partnership between the government as the funder and the NGOs as the providers of welfare services to the needy. The IT strategy for the welfare sector in Hong Kong was a special arrangement under the specific context of close partnership between the NGO sector and the government. This unique scenario and experience could be valuable lessons to the social service sectors in other countries.

Major Areas of Concern

15. Based on the data collected, the following major areas of concern of the NGOs were identified and they would be taken into consideration when formulating the new IT strategy for the welfare sector.

IT planning

16. The capacity of the agency to initiate strategic planning is crucial to enabling a more effective and sustainable use of IT. However, except for a few large NGOs, IT projects were implemented usually on an ad-hoc basis without conducting IT planning in a strategic and systematic manner. This project-by-project and funding-driven approach had hindered the IT-related resource planning and management from a holistic view of the agency, in particular considerations on the IT manpower resources. Most importantly, IT planning could enable NGOs to implement their IT projects in a more effective and efficient way to meet their business objectives in accordance with their pre-set priorities.

17. Larger NGOs were, in general, better equipped to enhance their IT development and the expertise for long term development. Whereas for smaller agencies, they might not have the time, expert knowledge or resources to produce strategic plans, and some form of outside support, such as consultancy service to assess how IT could be used to improve their service delivery and the cost-effectiveness of their administrative systems.

IT project development, implementation, management and support

18. Most NGOs had encountered various difficulties in the course of developing and implementing their IT projects. Although project staff cost was supported by both the BIP and the SWDF, agencies tended not to take into full account the additional effort of their own

staff in preparing the specifications for the tendering documents, negotiation with vendors / consultants, working out the workflow, gap analysis, user acceptance test and data conversion. All these implied additional workload for staff and might affect the successful implementation of the new system. The strain on staff might be particularly significant for smaller agencies. If the agency had other competing tasks, IT development might not be their priority and the process could be delayed. In some cases, the project might even be left idle without really taken up by staff. In developing IT projects, ownership of the end users was a major critical success factor. Ways to involve and support the staff in this process should be crucial to reducing project failure and wastage of resources.

19. During the procurement stage, some NGOs took a longer time to procure the required IT equipment and services as originally planned due to the lack of experience. They also had the misunderstanding that the procurement should stick to the equipment and models specified in their proposals. Except those large NGOs, most NGOs were lacking of adequate IT manpower resources and expertise for the implementation of IT projects and on-going management and support. This not only affected the progress of project implementation, but also exposed the security risk of IT infrastructure and systems which was required to be regularly reviewed to impose appropriate measures to mitigate the risk. Furthermore, it was noted that, in the absence of dedicated staff with specialised IT knowledge, 90% of the NGOs' websites did not comply with the web accessibility standards to make the contents available for all including persons with disabilities. This had made the concerned NGOs at risk of breaching the Disability Discrimination Ordinance.

20. The commitment of manpower resources from NGOs' management to IT projects / systems varied depending on the size and the level of managerial understanding and awareness of the contribution of IT to their business operation and service delivery.

21. IT in the welfare sector has its uniqueness which may be very different from the commercial sector. At the moment, NGOs often had to use a lot of time and efforts to articulate and communicate their needs to the vendors. For some smaller NGOs, they even had difficulties in identifying an appropriate service supplier.

22. With the growing need in IT development in the welfare sector and the disparity in IT sophistication among the NGOs, it would be very important to have a platform for information and experience sharing. Smaller agencies with no or few IT trained staff usually had undergone many frustrated experiences, good practices and positive experiences in dealing with vendors would be very helpful for these agencies. In developing such a platform, the crucial success factor is the building up of a knowledge sharing community.

23. Knowledge sharing among NGOs would also be very useful to raise awareness on the potential contributions of IT in achieving the agency mission and in improving the effectiveness at work. This awareness was especially important at the managerial level as this would encourage their support to integrate IT development into their business plans and to ensure a more stringent attitude in ensuring the successful implementation of the IT project.

24. Free or discounted resources for welfare agencies such as TechSoup, Donors Management System (a generic CRM system), Salesforce, Volunteer Management System, and Microsoft Cloud could also be uploaded in this platform and would be very useful for NGOs.

25. Another benefit in encouraging knowledge exchange is to provide the opportunities for deployment of successful IT applications and the possible development of common systems among the NGOs.

26. In the course of study, we had also observed that many large NGOs had developed systems that might be equally applicable to other NGOs. Some NGOs had indicated to our research team that they would be willing to share such experience and possibly their software with other NGOs, particularly smaller NGOs.

27. We noted in the studies that there were many IT applications supported under the BIP and SWDF. Most notably, apart from financial management and human resource management systems, there were several knowledge management (KM) systems, membership systems, programme enrolment system, attendance registration system, donor management system, volunteer system, etc. For instance, quite a number of KM systems, developed separately by different NGOs, are using the same SharePoint Portal of Microsoft. While there is on-going effort to develop a common application on donor management and volunteer management system under the cloud environment, there is obviously still room to consider whether more common applications can be made available to NGOs particularly to smaller NGOs, especially when there are already numerous application experience, and possibly successful experience, accumulated in the welfare sector.

<u>Funding arrangement</u>

28. NGOs currently relied on the LSG and SWDF as the major sources of recurrent expenditures and capital expenditures respectively for IT projects. For those NGOs with less LSG allocation, the resources available for the recurrent expenditures for the maintenance of

IT systems would be stringent. The rising maintenance costs had indeed posed the risk on the long-term sustainability of the IT systems and imposed financial burden on NGOs, in particular, those smaller in size.

29. Cloud service is a new service model for the implementation of IT projects. However, the charging scheme of cloud service would involve mainly recurrent expenses, which were currently not supported by the SWDF.

30. The current funding arrangement for IT projects might have to be reviewed and the possibility of provision of some sort of flexibility should also be explored to address the above concerns.

Adoption of latest technologies and standards

31. Without adequate knowledge and expertise, NGOs in general were not aware of the technology advancement and IT standards development. Social media and mobile devices are some of the popular new technologies that might help in improving the operational efficiency and service delivery and are worth further encouragement in their usage.

32. We anticipate that cloud computing is going to transform the whole IT environment in our society and would inevitably affect the welfare sector. Admittedly, this technology is not well-known among NGOs. The most common concerns expressed by NGOs in regard to this new technology were the potential security risks, especially the different standards and controls placed on access in the location / country in which the data was stored. Although there were alternative views saying that these risk concerns were an exaggeration, the issue of security should be addressed nonetheless.

33. NGOs also needed to observe the development of IT standards and to adopt the prevailing standards as appropriate. This not only reaped the benefits from the prevailing standards, but also mitigated the loopholes of IT systems, in particular the IT security aspects.

Deployment of the Client Information System (CIS) of SWD to the subvented Integrated Family Services Centres (IFSCs)

34. There was a plan to deploy the CIS of SWD to the subvented IFSCs to support case management. During the Review, it was noted that these IFSCs had already made use of IT

systems / PCs to store their case / client information. The concerned IFSCs had also indicated reservation on the use of the CIS in view of the uniqueness of their workflow. The deployment of the CIS to the subvented IFSCs was thus suggested not be pursued. Instead, the concerned IFSCs should be allowed to seek funding support under the existing funding scheme to implement their own case management system to meet their specific operation requirements.

35. Nevertheless, given the availability of such information in electronic mode, data exchange between these IFSCs and SWD could be further explored.

Guiding Principles for Formulating the New IT Strategy for the Welfare Sector

36. Based on the findings and analysis, the guiding principles for formulating the new IT strategy for the welfare sector were derived as follows:

- to place more focus on the small NGOs with relatively less resources and experiences with a view to reducing disparity among NGOs in IT development;

- to strengthen the knowledge and expertise of NGOs for better IT development, management and support;

- to enhance the supporting measures, including resources and technical support, to NGOs in the implementation and management of IT projects; and

- to promote the adoption of latest technologies and standards to improve operational efficiency, service delivery and communication.

V. RECOMMENDATIONS

In the previous chapters, the current state of IT adoption in the Welfare Sector has been outlined. In this chapter, the key issues to be addressed, the proposed strategic directions and recommendations on measures to further foster the IT development in the Sector for the next five years would be discussed.

2. From our findings, we can see that although IT is becoming an integral part in enhancing the effectiveness of the administration and business operation for most NGOs, there are still immense opportunities for IT capacity building in the Sector and the challenges remain significant.

Gaps in IT Development

3. A number of gaps in achieving the objectives of the IT Strategy have been identified in our study and they are summarized below:

IT Capacity and Planning / Human-ware

4. Substantial disparity in IT awareness and capacity among NGOs still exists. Smaller NGOs are usually in less favorable conditions in terms of financial resources and human-ware.

5. It is not common for NGOs to put efforts and resources in developing a comprehensive IT plan to identify their IT needs in a systematic and holistic manner and to guide their IT-related resource planning as well as work programme for improvement in their administration and service delivery. This is partly due to the lack of awareness on the benefits of IT planning in business operation and service provision, and partly due to lack of stable financial resources for IT.

Infrastructure

6. Essential infrastructure such as personal computers and basic software is generally in place, but there are problems in upgrading the system to keep technology up to date for optimal IT effectiveness. Computer equipment and the related software are usually procured at different times of an agency's IT development, resulting in an assortment of facilities of various versions and specifications. Agencies, when developing new systems, may

encounter problems of compatibility and may require additional resources to upgrade or replace the relevant hardware and software to make them compatible.

7. In general, security measures in network and data protection are grossly inadequate among NGOs.

Communication

8. Although most agencies have their own websites for communication and dissemination of information and some have set up KM portal for internal knowledge sharing purposes, communication within the Sector on IT related subjects, especially the experience of developing IT applications is still limited. There is little opportunity for agencies within the Welfare Sector to share their knowledge and experience in IT development. Many NGOs have limited knowledge about implementation of IT projects, especially project management, and have difficulties in identifying suitable resources for the provision of the required assistance.

Accessibility

9. The Government's Digital 21 Strategy has provided a blueprint for IT development in the community and NGOs have taken initiatives to promote digital inclusion for groups in need, e.g. the elderly and the under-privileged. In this regard, focus of the Welfare Sector has been on improving access to IT facilities and IT skills training. However, awareness on web accessibility for people with disabilities is still low and adherence to recognized web accessibility standards in website design is not common among NGOs.

Application Systems

10. Focus of NGOs in development of application systems is on administrative applications such as FM and HRM. However, the dominant concept is to 'computerize' the system instead of making use of IT to facilitate business process re-engineering (BPR) or operation enhancement.

11. The use of IT applications in service delivery (e.g. case management, programme enrolment, and communication with clients) is limited.

12. The utilization and satisfaction level of the newly developed IT projects under SWDF are yet to be assessed at a later stage.

SWOT Analysis

Strengths

13. There are some very dedicated and experienced IT technical staff members in the Sector and they will potentially become a very important asset to support future IT development in the Sector. In addition, there is growing awareness of the importance of IT at all levels of staff and they are now more ready to use new technology to enhance their service delivery.

Weaknesses / Limitations

14. Except for a few large NGOs, NGOs usually implement IT projects on an ad-hoc basis without formulating IT planning in a strategic and systematic manner. This project-by-project approach does not favor long-term comprehensive IT development, making it difficult for agencies to align their IT development with their business objectives. Furthermore, the mindset of some NGO managerial staff is still on 'computerization' instead of BPR

Opportunities

15. With the rapid development in IT and raised awareness on the benefits it may bring, the demand for IT services in the Welfare Sector is expanding. This would create incentives for professionals in the IT sector to invest more resources in this Sector. Besides, the public also expect their dealings with the Welfare Sector in the electronic mode and agencies have to make changes to meet such demands.

Threats

16. Funding is still a major concern of NGOs. IT development has to compete with other priorities.

17. The SWOT analysis highlighted the positive and negative factors in IT development in the Sector. On one hand, there is increasing demand for making the best of the technological

advancement and raised awareness on the benefits of IT to the Welfare Sector. On the other hand, the lack of resources and the mindset of the management on effective use of IT are restraints for long-term IT planning. In formulating the IT Strategy for the Welfare Sector, we would try to take the greatest possible advantage of the positive factors and to address or minimize the negative factors.

Vision for IT Development in the Welfare Sector

18. In view of the current state of IT adoption, the challenges faced by the Welfare Sector and the rapid advancement of IT, our vision in the coming 5 years are as follows to ensure that the Welfare Sector is enabled to optimize their IT capacity:

- The Welfare Sector will develop substantial IT capacity to enable optimal work efficiency in agency administrations and service delivery;

- More up-to-date technology appropriate to the needs and readiness of NGOs of different sizes will be used by the agencies to enhance their service delivery;

- All NGOs will be able to meet basic standards in data security and web accessibility; and

- The Welfare Sector will develop a sharing culture and have practical means to enable the sharing of IT knowledge, resources and experiences.

Proposed Strategic Directions and Recommendations

<u>Strategy I: Enhancing IT capacity for NGOs of different sizes, in particular those lagging behind the general trend</u>

19. This study offers a snapshot on the current IT situation in the Sector that reflects a large disparity among NGOs in their IT sophistication and readiness. To help agencies in positioning themselves in the overall picture and making references for strategic planning, it is useful to sketch a 'map' on IT capacity. It is, of course, important to note that the IT needs of different agencies are different. For instance, NGOs of different sizes may require different solutions for their financial management. While a very small NGO may require only a simple solution such as spread-sheets or data base to deal with its financial management, a large NGO may require a more sophisticated system containing numerous audit trails. On the other hand, larger NGOs would have the flexibility in deploying financial resources to meet their IT needs. By identifying the relative position of the agency,

it may provide a reference point for planning and where the most support is required in the future.

Recommendation 1: To enable NGOs to self-assess their IT capability and relative level in IT development

20. The proposed self-assessment of NGOs on their IT capability and relative level in IT development aims at assisting NGOs in developing their IT plans based on their business needs and IT readiness. Components that can be used in developing the self-assessment framework can include key parameters such as IT planning (e.g. existence of IT plan); IT facilities (e.g. infrastructure, applications) and IT support (e.g. human-ware and training[31]). Findings of the questionnaire survey on these parameters can be used as baselines for the NGOs' references when making plans to enhance their IT environment. Appendix IX illustrates the landscape of the current scenario by key parameters in IT capability by NGO size and a template for self-assessment is provided in Appendix X. At this point, we consider it sufficient for NGOs to decide on making such plans voluntarily at their own pace. By making reference to the Sector baselines and their business needs, NGOs would be able to prioritize their funding applications for IT projects under the SWDF.

Recommendation 2: To advocate IT planning and to consider the provision of additional resources to assist NGOs in conducting comprehensive IT plans that are in line with their current state of IT adoption and business objectives

21. In our study, it is found that although agencies are aware of the need to adopt IT in their daily operation and service delivery, many did not have the time or resources to work out comprehensive IT plans for their agencies. To help NGOs maximizing the return in IT investment, professional input is needed to assess and identify areas that need improvement in their infrastructure, develop customized strategic plans that can meet their business needs, improve the cost-effectiveness of their operation and help the agency to make good of the latest technologies in enhancing their service delivery. The provision of additional resources for NGOs to conduct IT plans could be considered, e.g. a dedicated funding to support consultancy services for IT planning. The SWD may consider at a later stage whether NGOs having an established IT plan would be a factor of consideration in their applications for funding to support IT development.

[31] Staff development and training is also one important element within the SWDF and NGOs can apply for funding within SWDF to support IT training.

Recommendation 3: To strengthen project management in IT projects

22. Our study has found that some of the projects were delayed or unable to meet the desired outcome due to lack of professional support in respect of project management. Professional support on project management can be pinpointed as a standard item in the funding applications under the SWDF. This can be either the employment of a competent project manager or acquisition of external service to ensure there is expertise in managing the IT projects funded under the SWDF. We are aware that at the moment, while there are accreditation systems for IT professionals (e.g. PRINCE2®[32], PMP[33]), such accreditations have not yet become the IT industry requirement. To ensure that professionals hired for the service are qualified, criteria required could be worked out between the IT Sector and the Welfare Sector. Examples of such criteria may include type and duration in IT professional training, years of IT / Welfare Sector experiences.

Recommendation 4: To promote the use of new technologies for more cost-effective service delivery and better communication with service users

23. With the advancement of IT and the proliferation of various devices, especially those mobile devices as the major and effective means of communication in the community, the potential to use IT to enable a higher level of connectivity for the creation of social benefits is considerable. NGOs should be encouraged to leverage the new technologies (e.g. e-payment, mobile service, social media[34]) to improve the service delivery and communication with their service users.

Recommendation 5: To strengthen NGOs' evaluation on completed IT projects

24. To ensure that the projects are evaluated after they are implemented and agencies can identify what support they may require in future IT development, NGOs are encouraged to make internal assessment on the usefulness of the IT projects funded by the SWDF and make evaluation on whether the projects are able to achieve its objectives. The existing project evaluation reports submitted by NGOs upon completion of IT projects could be reviewed and revised with a view to capturing more information to facilitate future reference of similar projects as well as experience sharing within the Sector.

---

[32] PRINCE2® is an UK based project management training and accreditation system.

[33] Project Management Professional (PMP) certification is offered by the PM Institute originated in the U.S. and now a global organization with its local base in Hong Kong as PMIHK Chapter.

[34] Three Pilot Cyber Youth Outreaching Projects financed by the SWD (2011-2014) serve as a good example of more use of the internet and social media.

Recommendation 6: To foster closer partnership between the Welfare and IT Sectors

25. One distinctive theme that has come up in our interviews is the lack of understanding between the two Sectors in communicating their needs in working out feasible plans. With the increasing number of IT projects developed in the Sector, there is a need to nurture closer partnership between professionals in both Sectors. One way to bring these two groups together, relevant IT professional associations could be approached to facilitate such networking and partnership. Alternatively, another way to develop this partnership is for NGOs to invite IT professionals to serve on their Boards or Committees or to solicit pro bono service of IT professionals as Honorary Project Consultant. In the latter case, NGOs' initiative is of prime importance.

Strategy II: Providing more flexibility in funding IT projects

26. At the moment, the major public fund for implementing IT projects is the SWDF. The SWDF is basically for the provision of non-recurrent costs for IT projects. Under the Lotteries Fund (LF), a Block Grant is also provided to NGOs each year for minor repairs, maintenance and replacement of furniture, fittings and equipment. While the use of the Block Grant for replacement of PCs and peripherals is allowed, there has been no actual increase in allocation to meet the increasing demand in these aspects. In addition, in the past years, additional resources were allocated to NGOs to replace their PCs on an ad-hoc and one-off basis, while in actual practice, replacement of PCs and other computer equipment including system servers in NGOs is almost a continuous and regular process.

Recommendation 7: To enable NGOs to adopt new IT service model as an implementation option under the SWDF

27. Cloud service is a new service model for IT projects where charges are based on the principle of 'infrastructure / software as a service'. To accommodate this new service model as an implementation option, which would reduce development risk of IT systems and upfront investment, allowance could be given to IT projects adopting such new service model to budget into the service charges of the initial three years (including subscription for service and warranty) on top of the upfront costs. Three alternatives in budgeting can be considered: (a) budgeting in the regular service charge (e.g. for cloud computing) together with other upfront costs for up to 3 years after project approval; (b) the service provider may adopt a discount rate to charge the subscription fees upfront[35]; or (c) using an intermediate to

[35] The upfront charge is equivalent to the present value of a given period of subscription fees.

subscribe the service from the vendor while charging NGOs upfront covering the discounted present value of subscription of a given period of time.

Recommendation 8: To expand the ambit of the Block Grant under the LF to provide funding support for replacement and upgrading of IT infrastructure

28. Noting that NGOs have to replace and upgrade their IT infrastructure on an on-going basis, there is a need to consider the funding support to computer equipment other than PCs and peripheral. Provision for this coverage can be considered under two options: (a) A designated IT Block Grant can be set up for procurement, replacement, upgrading and making minor improvement in IT infrastructure including PCs, peripherals, and other computer equipment. Although this option is clear cut, it is not sufficiently flexible, i.e. subsequent to the setting up of such designated IT Block Grant, immediately there would be a need to arrange for virement between this fund and the existing Block Grant. On the other hand, as we noted that NGOs always give direct service a higher priority in the use of resource, having a separate IT Block Grant would better ring-fence the resources from non-IT uses. An alternative approach (b) is to expand the ambit of the existing LF Block Grant to cover all computer equipment, not limited to PCs and peripherals. Furthermore, the provision of additional resources for the existing LF Block Grant should be considered, making reference to the allocation of previous one-off PC replacement exercises and other minor maintenance and replacement costs on IT due to the increasing utilization of IT in service administration and delivery, particularly in the past decade. Either approach will, at least, be more flexible than the irregular timeline to fund NGOs in the replacement of their computers[36].

<u>Strategy III: Enhancing data security and web accessibility</u>

29. In view of the rapid development in IT technology and the increasing trend to use IT in managing client information, it is the responsibility of the Welfare Sector to ensure that the personal information of their clients is well protected. However, our study has shown the general under-investment among NGOs in providing adequate security measures in the IT systems to protect privileged data. Only around one third of the NGOs have written documents on security related matters, and this lack of security precautions is particularly obvious among small and medium size NGOs. This is partly due to the lack of agency-wide professional input for needs assessment, formulation of relevant policies and the necessary

[36] Since 2000, two large scale one-off exercises have been launched by LF on the PC Replacement Programme, with one in 2001 amounting to $26 million and the other in 2009 at an amount of $27.2 million. The cost needed for merging can be calculated by making estimation on the yearly average. Source: *Discussion Paper No. JC 3/09 for the Joint Committee on Information Technology for the Social Welfare Sector on 18 June 2009.*

resources to implement such security measures. Furthermore, the access rights of clients to service and information should also be ensured by service providers. We found that many NGO websites fall far short of accessibility requirements and it may cause barriers for individuals who need to gain access to service and information through the internet.

Recommendation 9: To strengthen data security

30. NGOs are encouraged to devise IT security policy as the guide for implementing adequate measures to protect personal data stored in IT systems as well as to conduct security risk assessments regularly to assess the possible gaps, say in every two to three years. References can be made to the security guidelines promulgated by OGCIO for formulation of IT security policy.

31. Our study also shows that the installation of LAN is already a common practice for most NGOs. NGOs are encouraged to ensure that these infrastructures have measures in place to ensure adequate security protection and to give priority to the installation and / or upgrading of an appropriate LAN in the funding application for IT resources.

Recommendation 10: To promote web accessibility

32. Under the current practice when NGOs apply for funds in developing or revamping their websites from the SWDF web accessibility is a requirement. In view of the low awareness in the Sector and the need of compliance with the Disability Discrimination Ordinance, web accessibility standards should be promoted so that the content of existing NGOs' websites is accessible to all including persons with disability. References can be made to the web accessibility guidelines promulgated by OGCIO and the World Wide Web Consortium (W3C)[37]. Such adherence to web accessibility standards should be treated as an ongoing effort.

33. To encourage NGOs to formulate relevant policies and meet the standards in Recommendations 9 and 10, funding support should be provided to NGOs to conduct security risk assessments and /or revamp their websites to meet the required standards.

<u>Strategy IV: Sharing of resources and experiences in IT development and management</u>

[37] For details, please refer to the website: http://www.w3.org/standards/

34. It was noted from our study that many NGOs had difficulties in acquiring relevant and current knowledge and/ or resources in their IT development and management. Some agencies have to put extra efforts to identify appropriate resources by trial and error and have to learn the hard way. There is a need to cultivate the knowledge and experience sharing culture in the Sector to help strengthen NGOs' capacities in IT development. The setting up of an e-platform for sharing within the Sector would be of help. Seminar on good practices can also be conducted. Experience sharing on SWDF projects should be encouraged and sharing of relevant project information could be made a requirement in the coming phases of the SWDF application.

Recommendation 11: To promote knowledge and experience sharing through an e-platform

35. For knowledge and experience sharing, subjects that can be uploaded to the e-platform may include: free or discounted application systems, latest technologies applicable for the Welfare Sector and practice experiences in IT management and development. In addition, from our study, one of the key issues raised by NGO staff is their lack of information on the IT sector. We suggest that one of the functions of such platform is to develop a 'user feedback' site on service providers. A mechanism of 'vendor review' can be established so that performance of service providers for IT projects can be uploaded and NGOs can then make reference to such information. However, considerations should be made on the cost implications in developing and maintaining such platform. A more cost-effective way is to build on the existing platform such as the information portal developed earlier for the social welfare sector by the HKCSS.

Recommendations 12: To encourage sharing of IT applications among NGOs

36. NGOs that have already developed their own IT systems, in particular those common applications involving relatively simple workflow, e.g. membership system, e-payment system, can be encouraged to share them with other agencies, especially with smaller NGOs.

37. As an incentive, a simple and 'no-fuss' process should be worked out by NGOs who are willing to share, e.g. through an intermediate who would deal with the follow-up work with the recipient. In such a process, due considerations on intellectual property have to be made, while training and necessary customization, though should be kept to the minimal, should be adequately financed.

Other Recommendations

38. The Review has also looked into the suitability for the deployment of the CIS of SWD to subvented IFSCs.

Recommendation 13: To put aside the deployment of the CIS of SWD to subvented IFSCs

39. The deployment of the CIS of SWD is considered by many NGOs with much hesitation. The uniqueness of workflow of individual NGO, the protection of clients' privacy, and the possible impact on the worker-client relationship were the major concerns. Besides, it is noted that these IFSCs have already made use of IT systems / PCs to store their client information. Therefore, the deployment of CIS to subvented IFSCs is not recommended to be pursued. Nevertheless, the opportunity that IT provides in facilitating more efficient service planning and service delivery is considerable. We have noted that many NGOs have already sought support from BIP and SWDF to develop IT systems to handle client information but not necessarily calling them CIS. Such systems mostly are membership systems, care management systems for elderly and rehabilitation service, or simply CRM systems. Approaches in other services to manage the information of service users can be used as a reference for subvented IFSCs in developing IT systems with similar functions. In the long run, the Sector needs to explore further the development of a mechanism and data exchange standards and procedures among service providers, NGOs and SWD, to maximize the use of available case information and service statistics in order to strengthen sector-wide collaboration including timely identification of needy and high-risk cases, and efficient sector-wide service planning.

Approach for Implementation of the Proposed Strategies and Recommendations

40. In view of the time needed to launch the above proposed strategies and recommendations, it is suggested that they are to be implemented in two phases. Phase I will cover those recommendations not requiring additional funding resources but initiatives of individual NGOs. It will last from the first through the third year upon the launching of the new IT Strategy. Phase II will begin from the third through the fifth year and will involve funding allocation, in particular, recommendations under Strategy II: Providing more flexibility in funding IT projects.

Roles of various stakeholders

41. SWD continues to provide funding support and monitoring the development of IT projects under its financial provision. NGOs are encouraged to have better IT planning to

take the full advantages of IT to help achieve their business objectives. The Welfare Sector (through the HKCSS and / or other channels) needs to share their experience, products and practices in IT development and management.

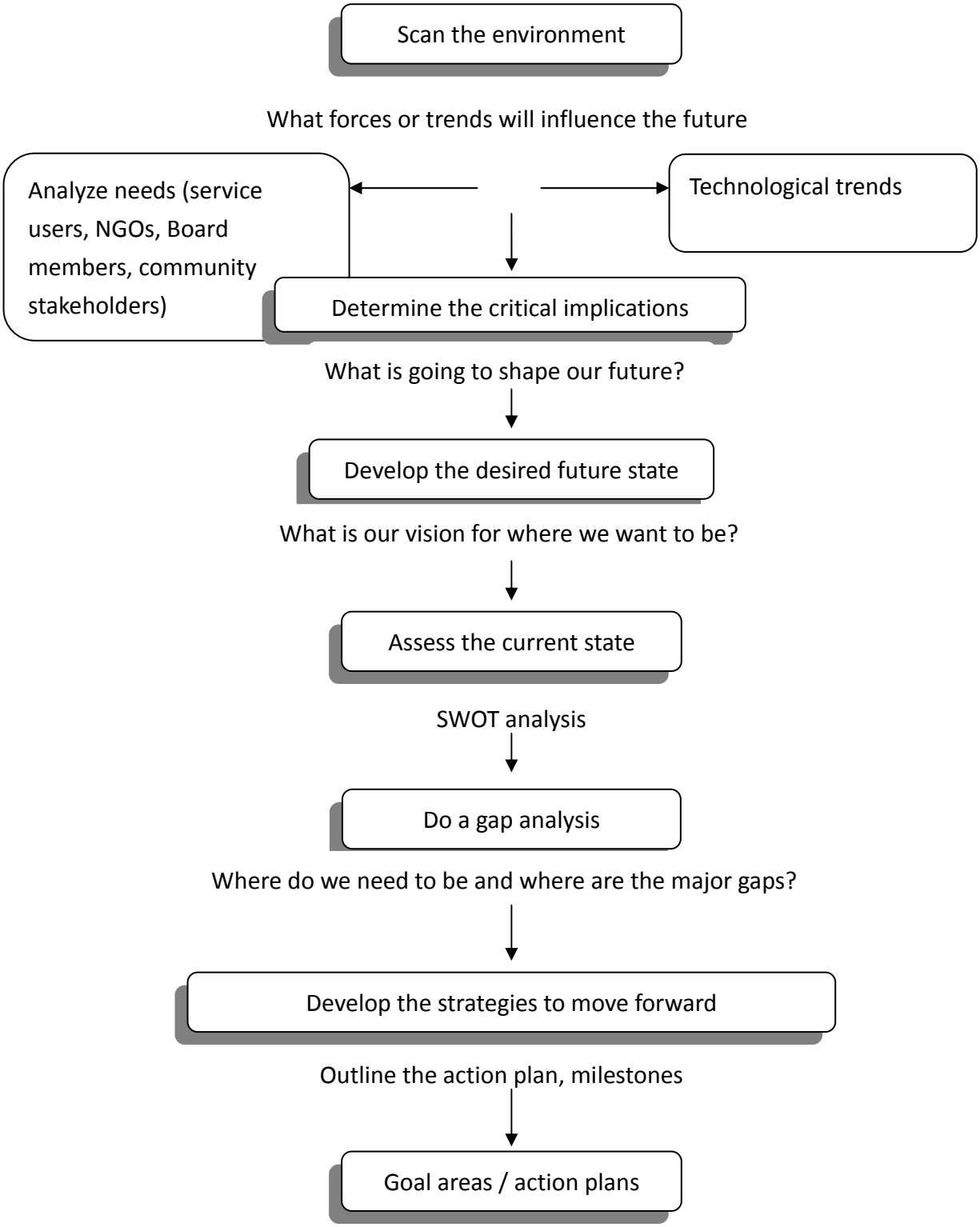
42. The IT sector and NGOs are facilitated to explore better collaboration so that the IT sector can render the quality technical support including products, advice and services to NGOs for the successful completion of IT projects.

Concluding Remarks

43. The current study concludes that the trend in the adoption of IT in the Welfare Sector has moved from establishing the basic infrastructure to a higher sophistication in using IT to achieve operational, service delivery and community benefits. However, it is evident that the pace in IT development is uneven across the Sector and it may hinder the realization of its full benefits. Demands from the clients, the funding providers and the wider community for a higher effectiveness and the efficiency in NGOs' operation and service delivery are likely to exert pressure in the Sector, and there is significant potential in using IT to facilitate NGOs to respond to these expectations. This review exercise serves to map out the scenario, raise key issues and recommend the way forward for consideration. With the transformative impact of IT development, the IT Strategy for the Social Welfare Sector needs to be regularly reviewed, say every five years, to keep in pace and avoid running the risk of being 'disconnected' from the community at large.

Appendix I

Strategic Planning Framework



Adopted and modified from Strategic Plan Too.com, retrieved from http://www.strategicplantool.com/Successful_Planning_Determinants.htm

Appendix II

Agencies participated in the interviews

Name of Agency	
Small	
1	Against Child Abuse Limited
2	Asian Outreach Hong Kong Limited
3	Association for the Rights of Industrial Accident Victims Limited
4	Five Districts Business Welfare Association
5	Hans Andersen Club
6	Hong Kong and Macau Regional Centre of the World Fellowship of Buddhists Limited
7	Hong Kong Federation of Handicapped Youth
8	Hong Kong Federation of the Blind
9	Hong Kong Red Cross
10	Hong Kong Rehabilitation Power
11	Hop Yat Church, the Church of Christ in China
12	Lam Tin Estate Kai Fong Welfare Association Limited (The)
13	Lok Chi Association Limited
14	New Territories Women and Juveniles Welfare Association Limited (The)
15	Society for Community Organization
16	The Boys' Brigade, Hong Kong
17	The Endeavourers Hong Kong Bert James Young Social Centre for the Elderly
18	The Society for the Aid and Rehabilitation of Drug Abusers
19	Women's Welfare Club, Western District Hong Kong
Medium	
1	Asbury Methodist Social Service
2	Ass. For Engineering & Medical Volunteer Service
3	Baptist Oi Kwan Social Service
4	Chan Hing Social Service Centre
5	Christian & Missionary Alliance Church Union Hong Kong Limited
6	Church of United Brethren in Christ Hong Kong Limited (The)
7	Ebenezer School and Home for the Visually Impaired
8	Free Methodist Church of Hong Kong (The)
9	Hong Kong Down Syndrome Association (The)
10	Hong Kong Evangelical Church Social Service Limited
11	Hong Kong Society for the Deaf
12	Hong Kong Society for the Protection of Children

Name of Agency	
13	Hong Kong Student Aid Society
14	Kwun Tong Methodist Social Service
15	Pentecoastal Church of HK
16	The Chinese Rhenish Church Hong Kong Synod Choi Wan Rhenish Integrated Children and Youth Services Centre
17	The Hong Kong Society for Rehabilitation
18	Tsung Tsin Mission of Hong Kong Social Service Company Ltd (The)
19	United Christian Nethersole Community Health Service
20	Youth Outreach
21	Yuen Long Town Hall Management Committee Limited
Large	
1	Buddhist Li Ka Shing Care And Attention Home for the Elderly
2	Caritas Hong Kong
3	Christian Family Service Centre
4	Evangelical Lutheran Church Social Service
5	Fu Hong Society
6	Haven of Hope Christian Service
7	Heep Hong Society
8	Hong Kong Family Welfare Society
9	Hong Kong Federation of Youth Groups (The)
10	Hong Kong Lutheran Social Service,
11	Hong Kong Playground Association
12	Hong Kong Sheng Kung Hui Welfare Council
13	New Life Psychiatric Rehabilitation Association
14	Po Leung Kuk
15	SAHK
16	The Boys' and Girls' Clubs Association of Hong Kong
17	The Hong Kong Society for the Blind
18	The Salvation Army
19	The Society of Rehabilitation And Crime Prevention, Hong Kong
20	Tung Wah Group of Hospitals
21	Yan Chai Hospital Social Services Department
22	YWCA

Appendix III

Tables on questionnaire survey for agencies[38]

Table A1: NGO by size by types and number of service units

Service type	Number of units											
	0		1		2		3-7		8-20		≥20	
Small	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Family and child welfare	40	63.5	9	14.3	0	0.0	12	19.0	0	0.0	2	3.2
Rehabilitation services	53	84.1	2	3.2	5	7.9	4	6.3	0	0.0	0	0.0
Services for the elderly	37	58.7	16	25.4	9	14.3	2	3.2	0	0.0	0	0.0
Services for young people	58	92.1	2	3.2	0	0.0	2	3.2	0	0.0	2	3.2
Services for offenders	61	96.8	2	3.2	0	0.0	0	0.0	0	0.0	0	0.0
Community development	58	92.1	4	6.3	2	3.2	0	0.0	0	0.0	0	0.0
Medium												
Family and child welfare	42	59.2	8	11.3	5	7.0	11	15.5	5	7.0	2	2.8
Rehabilitation services	53	74.6	3	4.2	2	2.8	5	7.0	9	12.7	0	0.0
Services for the elderly	38	53.2	5	7.0	8	11.3	18	25.4	3	4.2	0	0.0
Services for young people	33	46.5	18	25.4	6	8.5	12	16.9	2	2.8	0	0.0
Services for offenders	69	97.2	0	0.0	2	2.8	0	0.0	0	0.0	0	0.0
Community development	57	80.3	6	8.5	5	7.0	2	2.8	2	2.8	0	0.0
Large												
Family and child welfare	15	41.7	0	0.0	1	2.8	4	11.1	8	22.2	7	19.4
Rehabilitation services	7	19.4	1	2.8	0	0.0	4	11.1	10	27.8	14	38.9
Services for the elderly	14	38.9	0	0.0	0	0.0	1	2.8	11	30.6	10	27.8
Services for young people	15	41.7	0	0.0	0	0.0	6	16.7	12	33.3	3	8.3
Services for offenders	32	88.9	3	8.3	0	0.0	0	0.0	0	0.0	1	2.8
Community development	25	69.4	1	2.8	3	8.3	3	8.3	4	11.1	0	0.0

Table A2: NGO by size by number of staff

No. of staff	Full-time registered social worker						Other full-time staff					
	Small		Medium		Large		Small		Medium		Large	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*f*	*n*	*%*	*n*	*f*
≤50	61	96.8	56	78.9	1	2.8	54	85.7	32	45.1	0	0
51-100	0	0.0	14	19.7	7	19.4	7	11.1	12	16.9	0	0
101-200	0	0.0	2	2.8	10	27.8	2	3.2	14	19.7	1	2.8
201-300	0	0.0	0	0.0	11	30.6	0	0.0	9	12.7	0	0.0
301-400	0	0.0	0	0.0	3	8.3	0	0.0	0	0.0	3	8.3
401-500	0	0.0	0	0.0	0	0.0	0	0.0	2	2.8	1	2.8
501-1000	0	0.0	0	0.0	3	8.3	0	0.0	3	4.2	19	52.8
≥1001	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	10	27.8
Don't know	2	3.2	0	0.0	1	2.8	0	0.0	0	0.0	1	2.8
Total	63	100.0	71	100.0	36	100.0	63	100.0	71	100.0	36	100.0

Table A3: NGO size by availability of website

Size	Availability of website					
	Yes		*No*		*Total*	
	n	*%*	*n*	*%*	*n*	*%*
Small	54	85.7	9	14.3	63	100.0
Medium	68	95.8	3	4.2	71	100.0
Large	36	100.0	0	0.0	36	100.0
Total	158	92.9	12	7.1	170	100.0

[38] Survey results were weighted (i.e. grossed-up) to infer the population of NGO in Hong Kong. Attention is drawn to the fact that some figures might not add up to total or 100% due to rounding.

Table A4: NGO by size by availability of IT related document

		Yes		No, but planned to write		No, and have no plan to write		Don't know	
		n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Directions in IT Development									
	Small	9	14.3	9	14.3	42	66.7	4	6.3
	Medium	9	12.7	17	23.9	45	63.4	0	0.0
	Large	14	38.9	15	41.7	7	19.4	0	0.0
	Sub-total	32	18.8	41	24.1	94	55.3	4	2.4
Standards in infrastructure (including hardware and software)									
	Small	21	33.3	7	11.1	35	55.6	0	0.0
	Medium	24	33.8	9	12.7	38	53.5	0	0.0
	Large	26	72.2	4	11.1	6	16.7	0	0.0
	Sub-total	71	41.8	20	11.8	78	45.9	0	0.0
Accessibility of the agency / unit website(s)									
	Small	14	22.2	7	11.1	42	66.7	0	0.0
	Medium	15	21.1	15	21.1	41	57.7	0	0.0
	Large	12	33.3	12	33.3	11	30.6	0	0.0
	Sub-total	42	24.7	35	20.6	94	55.3	0	0.0
Standards in protection of the IT systems									
	Small	14	22.2	11	17.5	39	61.9	0	0.0
	Medium	20	28.2	18	25.4	33	46.5	0	0.0
	Large	15	41.7	14	38.9	7	19.4	0	0.0
	Sub-total	49	28.8	42	24.7	79	46.5	0	0.0
Standards in protecting data integrity									
	Small	18	28.6	9	14.3	37	58.7	0	0.0
	Medium	20	28.2	17	23.9	35	49.3	0	0.0
	Large	18	50.0	8	22.2	10	27.8	0	0.0
	Sub-total	55	32.4	34	20.0	81	47.6	0	0.0
Measures to manage incidents regarding data security									
	Small	19	30.2	9	14.3	35	55.6	0	0.0
	Medium	20	28.2	21	29.6	30	42.3	0	0.0
	Large	24	66.7	7	19.4	6	16.7	0	0.0
	Sub-total	63	37.1	37	21.8	71	41.8	0	0.0
Responsibility structure in data security									
	Small	9	14.3	5	7.9	49	77.8	0	0.0
	Medium	11	15.5	21	29.6	39	54.9	0	0.0
	Large	14	38.9	12	33.3	10	27.8	0	0.0
	Sub-total	34	20.0	38	22.4	98	57.6	0	0.0
Others									
	Small	0	0.0	0	0.0	0	0.0	0	0.0
	Medium	2	2.8	0	0.0	0	0.0	0	0.0
	Large	3	8.3	0	0.0	0	0.0	0	0.0
	Sub-total	5	2.9	0	0.0	0	0.0	0	0.0

Table A5: NGO by size by persons making decisions on IT related matters

	Agency size							
	Small		**Medium**		**Large**		**Total**	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Board members / sub-com. members*	19	30.6	14	19.1	17	46.2	49	29.1
IT qualification								
Yes	7	36.4	9	66.7	14	83.3	30	60.5
No	12	63.6	2	11.1	1	8.3	15	30.6
Don't know	0	0.0	3	22.2	1	8.3	4	8.9
Agency head	21	33.3	33	46.8	22	61.5	76	44.9
IT qualification								
Yes	4	16.7	2	4.5	6	25	11	13.8
No	16	75.0	32	95.5	17	75.0	64	83.9
Don't know	2	8.3	0	0.0	0	0.0	2	2.3
IT professionals	18	27.8	17	23.4	19	53.8	54	31.5
Others	5	8.3	6	8.5	3	7.7	14	8.3
Not applicable	12	19.4	17	23.4	3	7.7	32	18.6

**respondents can choose more than one option*

Table A6: NGO by size by importance of objectives of IT strategies / guidelines

	Very important		Fairly important		Fairly unimportant		Very unimportant		Don't know	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Enhance service effectiveness & efficiency										
Small	25	39.7	39	61.9	0	0.0	0	0.0	0	0.0
Medium	38	53.5	30	42.3	3	4.2	0	0.0	0	0.0
Large	29	80.6	7	19.4	0	0.0	0	0.0	0	0.0
Sub-total	91	53.5	76	44.7	3	1.8	0	0.0	0	0.0
Expanding e-service										
Small	11	17.5	39	61.9	14	22.2	0	0.0	0	0.0
Medium	6	8.5	44	62.0	18	25.4	2	2.8	2	2.8
Large	4	11.1	28	77.8	4	11.1	0	0.0	0	0.0
Sub-total	21	12.4	110	64.7	36	21.2	2	1.2	2	1.2
Strengthen the effectiveness & efficiency in administration and management										
Small	32	50.8	32	50.8	0	0.0	0	0.0	0	0.0
Medium	38	53.5	32	45.1	2	2.8	0	0.0	0	0.0
Large	29	80.6	7	19.4	0	0.0	0	0.0	0	0.0
Sub-total	98	57.6	70	41.2	2	1.2	0	0.0	0	0.0
Strengthen contact with stakeholders										
Small	25	39.7	35	55.6	4	6.3	0	0.0	0	0.0
Medium	14	19.7	54	76.1	3	4.2	0	0.0	0	0.0
Large	17	47.2	17	47.2	3	8.3	0	0.0	0	0.0
Sub-total	55	32.4	106	62.4	9	5.3	0	0.0	0	0.0
Strengthen internal information exchange										
Small	19	30.2	39	61.9	5	7.9	0	0.0	0	0.0
Medium	35	49.3	32	45.1	5	7.0	0	0.0	0	0.0
Large	28	77.8	8	22.2	0	0.0	0	0.0	0	0.0
Sub-total	82	48.2	79	46.5	10	5.9	0	0.0	0	0.0
Strengthen internal knowledge management / exchange of experience										
Small	9	14.3	46	73.0	9	14.3	0	0.0	0	0.0
Medium	21	29.6	38	53.5	11	15.5	2	2.8	0	0.0
Large	25	69.4	11	30.6	0	0.0	0	0.0	0	0.0
Sub-total	55	32.4	94	55.3	19	11.2	2	1.2	0	0.0
Enhance staff's IT knowledge and acceptability										
Small	11	17.5	47	74.6	5	7.9	0	0.0	0	0.0
Medium	18	25.4	48	67.6	3	4.2	2	2.8	0	0.0
Large	18	50.0	18	50.0	0	0.0	0	0.0	0	0.0
Sub-total	47	27.6	114	67.1	8	4.7	2	1.2	0	0.0
Others										
Small	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Medium	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Large	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Sub-total	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table A7: NGO by size by IT applications used

	Yes		No → plan in next 3 years					
			Planned to launch		No plan to launch		Don't Know	
	n	%	*n*	%	*n*	%	*n*	%
Financial management								
Small	46	73.0	5	7.9	7	11.1	5	7.9
Medium	56	78.9	6	8.5	5	7.0	5	7.0
Large	35	97.2	1	2.8	0	0.0	0	0.0
Sub-total	137	80.6	12	7.1	12	7.1	10	5.9
Human resource								
Small	14	22.2	14	22.2	18	28.6	18	28.6
Medium	36	50.7	14	19.7	8	11.3	14	19.7
Large	28	77.8	8	22.2	0	0.0	0	0.0
Sub-total	78	45.9	36	21.2	26	15.3	32	18.8
Intranet								
Small	39	61.9	4	6.3	12	19.0	9	14.3
Medium	48	67.6	8	11.3	11	15.5	5	7.0
Large	33	91.7	1	2.8	1	2.8	0	0.0
Sub-total	120	70.6	13	7.6	24	14.1	14	8.2
Client information system								
Small	21	33.3	11	17.5	19	30.2	12	19.0
Medium	29	40.8	14	19.7	24	33.8	5	7.0
Large	29	80.6	4	11.1	3	8.3	0	0.0
Sub-total	79	46.5	29	17.1	46	27.1	17	10.0
Membership information system								
Small	30	47.6	14	22.2	9	14.3	11	17.5
Medium	29	40.8	15	21.1	18	25.4	9	12.7
Large	28	77.8	6	16.7	3	8.3	0	0.0
Sub-total	87	51.2	35	20.6	30	17.6	20	11.8
Activity registration system								
Small	30	47.6	11	17.5	11	17.5	12	19.0
Medium	38	53.5	11	15.5	18	25.4	5	7.0
Large	24	66.7	1	2.8	8	22.2	3	8.3
Sub-total	92	54.1	23	13.5	37	21.8	20	11.8
Knowledge management								
Small	9	14.3	9	14.3	23	36.5	23	36.5
Medium	9	12.7	17	23.9	30	42.3	15	21.1
Large	21	58.3	10	27.8	4	11.1	1	2.8
Sub-total	39	22.9	36	21.2	57	33.5	39	22.9
Donation								
Small	9	14.3	7	11.1	26	41.3	21	33.3
Medium	17	23.9	11	15.5	32	45.1	12	16.9
Large	19	52.8	10	27.8	4	11.1	3	8.3
Sub-total	45	26.5	28	16.5	62	36.5	36	21.2
Direct service provision								
Small	0	0.0	4	6.3	35	55.6	25	39.7
Medium	8	11.3	9	12.7	42	59.2	12	16.9
Large	4	11.1	4	11.1	15	41.7	12	33.3
Sub-total	12	7.1	17	10.0	92	54.1	49	28.8
Indirect service provision								
Small	21	33.3	5	7.9	21	33.3	16	25.4
Medium	23	32.4	12	16.9	29	40.8	8	11.3
Large	21	58.3	3	8.3	7	19.4	6	16.7
Sub-total	65	38.2	20	11.8	57	33.5	30	17.6
Others								
Small	0	0.0	0	0.0	0	0.0	0	0.0
Medium	0	0.0	0	0.0	0	0.0	0	0.0
Large	0	0.0	0	0.0	0	0.0	0	0.0
Sub-total	0	0.0	0	0.0	0	0.0	0	0.0

Table A8: NGO by size by level of satisfaction with IT

	Very satisfied		Fairly satisfied		Fairly unsatisfied		Very unsatisfied		Don't know		NA	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Infrastructure												
Small	4	5.6	49	77.8	7	11.1	4	5.6	0	0.0	0	0.0
Medium	6	8.5	39	55.3	23	31.9	0	0.0	0	0.0	3	4.3
Large	3	7.7	28	76.9	6	15.4	0	0.0	0	0.0	0	0.0
subtotal	12	7.2	116	68.2	35	20.7	4	2.1	0	0.0	3	1.8
Applications for management and administration												
Small	0	0.0	39	61.1	18	27.8	4	5.6	0	0.0	4	5.6
Medium	2	2.1	30	42.6	32	44.7	5	6.4	0	0.0	3	4.3
Large	0	0.0	24	65.4	10	26.4	0	0.0	1	3.8	1	3.8
subtotal	*2*	0.9	92	54.3	59	34.7	8	4.7	1	0.8	8	4.7
Applications for service provision												
Small	0	0.0	33	52.8	23	36.1	4	5.0	4	5.6	0	0.0
Medium	3	4.3	27	38.3	30	42.6	5	6.4	0	0.0	6	8.5
Large	0	0.0	15	42.3	14	38.5	4	11.5	1	3.8	1	3.8
subtotal	*3*	1.8	76	44.5	67	39.3	12	7.2	11	6.4	1	0.8

Table A9: NGO by size by staff with IT qualification in the previous year

Size	With qualification in IT	
	n	*%*
Small	19	30.2
Medium	30	42.3
Large	33	91.7
Total	83	48.8

Table A10: NGO by size by position of staff with IT qualification

	Management	Technical support	Others
Size	*Average no.*	*Average no.*	*Average no.*
Small	1.43	1.14	0
Medium	1.14	1.38	1.0
Large	1.41	4.86	1.0
Total	1.33	2.92	1.0

Table A11: NGO by size by staff without IT qualification in the previous year

Size	Without qualification in IT	
	n	*%*
Small	42	66.7
Medium	50	70.4
Large	28	77.8
Total	120	70.6

Table A12: NGO by size by responsibilities of staff without IT qualification

	Management and support of infrastructure		Maintenance of infrastructure		Applications for management & administration		Applications for service provision		Others	
Size	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Small	32	50.8	26	41.3	12	19.0	21	33.3	2	3.2
Medium	38	53.5	33	46.5	18	25.4	17	23.9	2	2.8
Large	17	47.2	14	38.9	12	33.3	11	30.6	3	8.3
Total	88	51.8	73	42.9	43	25.3	49	28.8	6	3.5

Table A13: NGO by size by outside support in previous year

Size	*n*	*%*
Small	51	81.0
Medium	66	93.0
Large	36	100.0
Total	153	90.0

Table A14: NGO by size by organization / company providing support in previous year

	every time		Most of the time		Half of the time		Less than half of the time		never		Don't know this organization/ company	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Hardware vendors												
Small	4	7.8	11	21.6	7	13.7	16	31.4	7	13.7	7	13.7
Medium	9	13.6	21	31.8	5	7.6	26	39.4	5	7.6	2	3.0
Large	3	8.3	12	33.3	8	22.2	12	33.3	0	0.0	0	0.0
Sub-total	16	10.5	44	28.8	20	13.1	54	35.3	12	7.8	9	5.9
Software vendors												
Small	4	7.8	7	13.7	11	21.6	18	35.3	7	13.7	5	9.8
Medium	8	12.1	15	22.7	6	9.1	27	40.9	9	13.6	2	3.0
Large	3	8.3	10	27.8	10	27.8	14	38.9	0	0.0	0	0.0
Sub-total	15	9.8	32	20.9	27	17.6	59	38.6	16	10.5	7	4.6
IT consultancy / IT solution company												
Small	5	9.8	7	13.7	12	23.5	14	27.5	5	9.8	7	13.7
Medium	3	4.5	17	25.8	9	13.6	18	27.3	18	27.3	2	3.0
Large	3	8.3	8	22.2	11	30.6	12	33.3	1	2.8	0	0.0
Sub-total	11	7.2	32	20.9	32	20.9	44	28.8	24	15.7	9	5.9
ITRC												
Small	0	0.0	9	17.6	5	9.8	14	27.5	14	27.5	9	17.6
Medium	2	3.0	15	22.7	14	21.2	27	40.9	8	12.1	2	3.0
Large	0	0.0	4	11.1	6	16.7	18	50.0	8	22.2	0	0.0
Sub-total	2	1.3	28	18.3	25	16.3	59	38.6	30	19.6	11	7.2
Others												
Small	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Medium	0	0.0	2	3.0	0	0.0	0	0.0	0	0.0	0	0.0
Large	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Sub-total	0	0.00	2	1.3	0	0.0	0	0.0	0	0.0	0	0.0

Table A15: NGO by size by sufficiency in IT support

	Very sufficient		Fairly sufficient		Fairly insufficient		Very insufficient		NA	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Hardware maintenance										
Small	2	3.2	37	58.7	19	30.2	5	7.9	0	0.0
Medium	5	7.0	30	42.3	33	46.5	3	4.2	0	0.0
Large	7	19.4	22	61.1	7	19.4	0	0.0	0	0.0
Sub-total	14	8.2	89	52.4	59	34.7	8	4.7	0	0.0
Software application and update										
Small	2	3.2	35	55.6	19	30.2	7	11.1	0	0.0
Medium	2	2.8	33	46.5	33	46.5	3	4.2	0	0.0
Large	6	16.7	18	50.0	11	30.6	1	2.8	0	0.0
Sub-total	10	5.9	86	50.6	63	37.1	11	6.5	0	0.0
Maintenance for management and administration applications										
Small	2	3.2	26	41.3	18	28.6	11	17.5	7	11.1
Medium	0	0.0	15	21.1	35	49.3	9	12.7	12	16.9
Large	1	2.8	19	52.8	11	30.6	1	2.8	3	8.3
Sub-total	3	1.8	60	35.3	64	37.6	21	12.4	22	12.9
Maintenance for intranet										
Small	2	3.2	21	33.3	18	28.6	11	17.5	12	19.0
Medium	2	2.8	17	23.9	35	49.3	5	7.0	12	16.9
Large	1	2.8	18	50.0	10	27.8	3	8.3	4	11.1
Sub-total	5	2.9	56	32.9	63	37.1	19	11.2	28	16.5
Update on staff webpage / website										
Small	2	3.2	25	39.7	9	14.3	11	17.5	18	28.6
Medium	0	0.0	21	29.6	24	33.8	9	12.7	17	23.9
Large	0	0.0	17	47.2	7	19.4	3	8.3	10	27.8
Sub-total	2	1.2	63	37.1	40	23.5	23	13.5	45	26.5
Maintenance on staff webpage / website										
Small	2	3.2	23	36.5	5	7.9	14	22.2	19	30.2
Medium	2	2.8	20	28.2	23	32.4	11	15.5	17	23.9
Large	3	8.3	17	47.2	4	11.1	3	8.3	10	27.8
Sub-total	7	4.1	60	35.3	32	18.8	28	16.5	46	27.1
Update on webpage/ website for service users										
Small	2	3.2	19	30.2	18	28.6	9	14.3	16	25.4
Medium	0	0.0	15	21.1	26	36.6	9	12.7	21	29.6
Large	0	0.0	14	38.9	8	22.2	0	0.0	14	38.9
Sub-total	2	1.2	48	28.2	52	30.6	18	10.6	51	30.0
Maintenance for webpage/ website for service users										
Small	2	3.2	25	39.7	12	19.0	9	14.3	16	25.4
Medium	0	0.0	17	23.9	23	32.4	11	15.5	21	29.6
Large	1	2.8	12	33.3	7	19.4	1	2.8	14	38.9
Sub-total	3	1.8	54	31.8	42	24.7	21	12.4	51	30.0
Professional and technical support for agency IT development and implementation										
Small	2	3.2	16	25.4	26	41.3	9	14.3	11	17.5
Medium	2	2.8	14	19.7	32	45.1	15	21.1	9	12.7
Large	4	11.1	18	50.0	8	22.2	4	11.1	1	2.8
Sub-total	8	4.7	48	28.2	66	38.8	28	16.5	21	12.4

Table A16: NGO by size by special needs of service users in using computer

Size	**Service users with special needs**	
	n	*%*
Small	35	55.6
Medium	33	46.5
Large	30	83.3
Total	99	58.2

Table A17: NGO by size by support given to service users with special needs in using computer

Size	Yes		No		Don't know	
	n	*%*	*n*	*%*	*n*	*%*
Small	26	41.3	37	58.7	0	0.0
Medium	27	38.0	42	59.2	2	2.8
Large	29	80.6	6	16.7	1	2.8
subtotal	82	48.2	85	50.0	3	1.8

Table A18: NGO by size by support given to service users with special needs in using computer

Size	Yes*					
	Provide training		Installation of software/hardware to increase accessibility		Website accessibility	
	n	*%*	*n*	*%*	*n*	*%*
Small	25	96.2	11	42.3	0	0.0
Medium	27	100.0	9	33.3	3	11.1
Large	28	96.6	19	65.5	8	27.6
subtotal	79	96.2	39	47.2	11	13.7

**can choose more than one option*

Table A19: NGO by size by level of website accessibility for service user with special needs

Level of accessibility	Small		Medium		Large	
	n	*%*	*n*	*%*	*n*	*%*
WCAG2.0 – Level A	0	100.0	3	100.0	0	0.0
WCAG2.0 – Level AA	0	100.0	0	0.0	3	37.5
WCAG2.0 – Level AAA	0	100.0	0	0.0	0	0.0
Other relevant standard	0	100.0	0	0.0	4	50.0
Don't know	0	100.0	0	0.0	1	12.5

Table A20: NGO by size by training provided to staff in the previous year

Training provided	Size							
	Small		Medium		Large		Total	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Yes*	35	55.6	42	59.6	35	96.2	112	65.8
General word processing	*25*	*70.0*	*24*	*57.1*	*28*	*80.0*	*76*	*68.2*
Applications for management and administration	*16*	*45.0*	*27*	*64.3*	*28*	*80.0*	*71*	*63.1*
Customized applications for management & admin.	*12*	*35.0*	*11*	*25.0*	*12*	*36.0*	*35*	*31.5*
Management of information platform	*12*	*35.0*	*6*	*14.3*	*8*	*24.0*	*27*	*23.8*
Computer graphics	*7*	*20.0*	*18*	*42.9*	*12*	*36.0*	*38*	*33.6*
Knowledge on recent IT development	*5*	*15.0*	*14*	*32.1*	*12*	*36.0*	*31*	*28.0*
Knowledge on IT security	*9*	*25.0*	*12*	*28.6*	*19*	*56.0*	*40*	*35.9*
Knowledge on IT usage in the welfare sector	*7*	*20.0*	*14*	*32.1*	*15*	*44.0*	*36*	*32.0*
Others	*0*	*0.0*	*0*	*0.0*	*3*	*8.0*	*3*	*2.5*
Don't know	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*
No	28	44.4	29	40.8	1	3.8	58	34.2

**can choose more than one option*

Table A21: NGO by size by IT training policy for staff

Training provided	Size							
	Small		Medium		Large		Total	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Yes*	35	55.6	38	53.2	32	88.5	105	61.5
Providing subsidy for IT courses	*32*	*90.0*	*33*	*88.0*	*30*	*95.7*	*95*	*91.0*
Paid leave for attending IT courses	*16*	*45.0*	*18*	*48.0*	*26*	*82.6*	*60*	*57.5*
Training courses organized by agency	*9*	*25.0*	*14*	*36.0*	*30*	*95.7*	*53*	*50.5*
Others	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*
No	28	44.4	33	46.8	4	11.5	65	38.5

**can choose more than one option*

Table A22: NGO by size by sufficiency with staff IT training

	Small		Medium		Large		Total	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Very sufficient	0	0.0	0	0.0	1	2.8	1	0.6
Fairly sufficient	32	50.8	21	29.6	22	61.1	75	44.1
Fairly insufficient	23	36.5	39	54.9	11	30.6	73	42.9
Very insufficient	9	14.3	11	15.5	1	2.8	21	12.4

Table A23: NGO by size by source of capital cost for IT projects

	All of them		Most of them		Half & half		Less than half	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
LSG								
Small	5	7.9	9	14.3	5	7.9	5	7.9
Medium	5	7.0	20	28.2	2	2.8	26	36.6
Large	0	0.0	6	16.7	1	2.8	21	58.3
subtotal	10	5.9	35	20.6	8	4.7	52	30.6
BIP								
Small	0	0.0	0	0.0	0	0.0	5	7.9
Medium	0	0.0	0	0.0	0	0.0	11	15.5
Large	0	0.0	3	8.3	0	0.0	14	38.9
subtotal	*0*	0.0	3	1.8	0	0.0	30	17.6
SWDF								
Small	4	6.3	12	19.0	4	6.3	12	19.0
Medium	0	0.0	23	32.4	5	7.0	20	28.2
Large	0	0.0	10	27.8	4	11.1	10	27.8
subtotal	*4*	2.4	45	26.5	13	7.6	42	24.7
Lotteries fund								
Small	4	6.3	4	6.3	0	0.0	12	19.0
Medium	2	2.8	6	8.5	2	2.8	21	29.6
Large	0	0.0	6	16.7	1	2.8	18	50.0
subtotal	*6*	3.5	16	9.4	3	1.8	51	30.0
Donation								
Small	4	6.3	4	6.3	4	6.3	12	19.0
Medium	0	0.0	12	16.9	2	2.8	21	29.6
Large	0	0.0	3	8.3	1	2.8	12	33.3
subtotal	*4*	2.4	19	11.2	7	4.1	45	26.5
Charity fund								
Small	0	0.0	0	0.0	2	3.2	5	7.9
Medium	0	0.0	0	0.0	2	2.8	17	23.9
Large	0	0.0	0	0.0	0	0.0	14	38.9
subtotal	*0*	0.0	0	0.0	4	2.4	36	21.2
others								
Small	0	0.0	4	6.3	2	3.2	4	6.3
Medium	0	0.0	2	2.8	2	2.8	8	11.3
Large	0	0.0	1	2.8	0	0.0	6	16.7

	All of them		Most of them		Half & half		Less than half	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
subtotal	*0*	0.0	7	4.1	4	2.4	18	10.6
Don't know								
			n			*%*		
Small			5			7.9		
Medium			2			2.8		
Large			1			2.8		
subtotal			8			4.7		

Table A24: NGO by size by source of recurrent cost for IT projects

	All of them		Most of them		Half & half		Less than half	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
LSG								
Small	21	33.3	12	19.0	0	0.0	9	14.3
Medium	20	28.2	32	45.1	8	11.3	5	7.0
Large	8	22.2	17	47.2	4	11.1	4	11.1
subtotal	49	28.8	61	35.9	12	7.1	18	10.6
Donation								
Small	9	14.3	5	7.9	0	0.0	11	17.5
Medium	2	2.8	8	11.3	8	11.3	24	33.8
Large	0	0.0	4	11.1	1	2.8	10	27.8
subtotal	*11*	6.5	17	10.0	9	5.3	45	26.5
Charity fund								
Small	2	3.2	2	3.2	0	0.0	12	19.0
Medium	0	0.0	0	0.0	3	4.2	11	15.5
Large	0	0.0	0	0.0	1	2.8	11	30.6
subtotal	*2*	1.2	2	1.2	4	2.4	34	20.0
Others								
Small	0	0.0	2	3.2	0	0.0	2	3.2
Medium	2	2.8	2	2.8	0	0.0	8	11.3
Large	1	2.8	0	0.0	0	0.0	4	11.1
subtotal	*3*	1.8	4	2.4	0	0.0	14	8.2
Don't know								
			n			*%*		
Small			7			11.1		
Medium			0			0.0		
Large			1			2.8		
subtotal			8			4.7		

Table A25: NGO by size by success factors in implementation of IT projects

	Very important		Fairly important		Fairly unimportant		Very unimportant	
*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Project meets the administrative and management needs of the agency								
Small	33	52.4	28	44.4	2	3.2	0	0.0
Medium	42	59.2	27	38.0	2	2.8	0	0.0
Large	26	72.2	10	27.8	0	0.0	0	0.0
subtotal	101	59.4	65	38.2	4	2.4	0	0.0
Project meets the needs of the service users and members								
Small	25	39.7	33	52.4	4	6.3	0	0.0
Medium	29	40.8	38	53.5	5	7.0	0	0.0
Large	22	61.1	14	38.9	0	0.0	0	0.0
subtotal	*76*	44.7	85	50.0	9	5.3	0	0.0
Support from experienced professionals								
Small	21	33.3	33	52.4	9	14.3	0	0.0
Medium	27	38.0	41	57.7	3	4.2	0	0.0
Large	18	50.0	17	47.2	1	2.8	0	0.0

	Very important		Fairly important		Fairly unimportant		Very unimportant	
subtotal	*66*	38.8	91	53.5	13	7.6	0	0.0
Acceptability of the staff								
Small	18	28.6	44	69.8	2	3.2	0	0.0
Medium	18	25.4	50	70.4	3	4.2	0	0.0
Large	33	91.7	3	8.3	0	0.0	0	0.0
subtotal	*69*	40.6	97	57.1	5	2.9	0	0.0
Staff involvement								
Small	25	39.7	37	58.7	2	3.2	0	0.0
Medium	27	38.0	41	57.7	3	4.2	0	0.0
Large	33	91.7	3	8.3	0	0.0	0	0.0
subtotal	*85*	50.0	81	47.6	5	2.9	0	0.0
User friendliness								
Small	35	55.6	28	44.4	0	0.0	0	0.0
Medium	35	49.3	35	49.3	2	2.8	0	0.0
Large	26	72.2	10	27.8	0	0.0	0	0.0
subtotal	*96*	56.5	73	42.9	2	1.2	0	0.0
Training provided to users								
Small	19	30.2	39	61.9	5	7.9	0	0.0
Medium	30	42.3	39	54.9	2	2.8	0	0.0
Large	21	58.3	14	38.9	1	2.8	0	0.0
subtotal	*70*	41.2	92	54.1	8	4.7	0	0.0
Adequate technical support before/after implementation of the project								
Small	33	52.4	28	44.4	2	3.2	0	0.0
Medium	38	53.5	30	42.3	3	4.2	0	0.0
Large	28	77.8	8	22.2	0	0.0	0	0.0
subtotal	*99*	58.2	66	38.8	5	2.9	0	0.0
Adequate resource for maintenance after implementation of the project								
Small	25	39.7	37	58.7	2	3.2	0	0.0
Medium	39	54.9	30	42.3	2	2.8	0	0.0
Large	22	61.1	14	38.9	0	0.0	0	0.0
subtotal	*86*	50.6	81	47.6	4	2.4	0	0.0
Others								
Small	0	0.0	0	0.0	0	0.0	0	0.0
Medium	0	0.0	0	0.0	0	0.0	0	0.0
Large	0	0.0	0	0.0	0	0.0	0	0.0
subtotal	0	0.0	0	0.0	0	0.0	0	0.0

**can choose more than one option*

Table A26: NGO by size by need in partnership among NGOs

Need for partnership	Size							
	Small		Medium		Large		Total	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Yes*	40	63.9	57	80.9	32	88.5	130	76.2
Develop core administration system for the welfare sector	*30*	*73.9*	*45*	*78.9*	*18*	*56.5*	*93*	*71.9*
Develop core CIS for the welfare sector	*30*	*73.9*	*38*	*65.8*	*21*	*65.2*	*88*	*68.2*
Develop knowledge exchange system for the welfare sector	*18*	*43.5*	*38*	*65.8*	*22*	*69.6*	*77*	*59.8*
Develop on-line donation system for the welfare sector	*19*	*47.8*	*36*	*63.2*	*15*	*47.8*	*71*	*54.6*
Develop e-service system	*16*	*39.1*	*33*	*57.9*	*22*	*69.6*	*71*	*54.9*
Others	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*
No	14	22.2	8	10.6	4	11.5	26	15.1
Don't know	9	13.9	6	8.5	0	0.0	15	8.7

**can choose more than one option*

Table A27: NGO by size by priorities in expectations on IT strategy for the welfare sector

	1st		2nd		3rd		4th		5th	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Infrastructure										
Provide sufficient hardware/ software for staff needing to use computer										
Small	35	55.6	2	3.2	7	11.1	4	6.3	7	11.1
Medium	39	54.9	11	15.5	3	4.2	3	4.2	6	8.5
Large	12	33.3	6	16.7	3	8.3	1	2.8	1	2.8
subtotal	86	50.6	19	11.2	13	7.6	8	4.7	14	8.2
Installation of intranet information system										
Small	2	3.2	21	33.3	4	6.3	5	7.9	5	7.9
Medium	12	16.9	24	33.8	3	4.2	8	11.3	3	4.2
Large	4	11.1	10	27.8	6	16.7	4	11.1	4	11.1
subtotal	18	10.6	55	32.4	13	7.6	17	10.0	12	7.1
Application systems										
HRMS										
Small	2	3.2	7	11.1	12	19.0	16	25.4	2	3.2
Medium	5	7.0	12	16.9	11	15.5	20	28.2	9	12.7
Large	3	8.3	3	8.3	10	27.8	7	19.4	1	2.8
subtotal	*10*	5.9	22	12.9	33	19.4	43	25.3	12	7.1
FMS										
Small	11	17.5	12	19.0	11	17.5	7	11.1	7	11.1
Medium	5	7.0	11	15.5	15	21.1	14	19.7	9	12.7
Large	1	2.8	6	16.7	6	16.7	4	11.1	4	11.1
subtotal	*17*	10.0	29	17.1	32	18.8	25	14.7	20	11.8
Service management										
Small	2	3.2	7	11.1	5	7.9	2	3.2	5	7.9
Medium	2	2.8	6	8.5	9	12.7	9	12.7	11	15.5
Large	1	2.8	3	8.3	3	8.3	6	16.7	1	2.8
subtotal	*5*	2.9	16	9.4	17	10.0	17	10.0	17	10.0
Agency-base CIS										
Small	4	6.3	4	6.3	7	11.1	4	6.3	9	14.3
Medium	0	0.0	3	4.2	8	11.3	3	4.2	12	16.9
Large	4	11.1	3	8.3	0	0.0	4	11.1	4	11.1
subtotal	*8*	4.7	10	5.9	15	8.8	11	6.5	25	14.7
human-ware										
Provide training for general computer software application										
Small	7	11.1	4	6.3	9	14.3	11	17.5	7	11.1
Medium	3	4.2	2	2.8	9	12.7	5	7.0	5	7.0
Large	1	2.8	4	11.1	0	0.0	3	8.3	4	11.1
subtotal	*11*	6.5	10	5.9	18	10.6	19	11.2	16	9.4
Provide training for specific applications (e.g. HRMS, FMS)										
Small	2	3.2	7	11.1	7	11.1	12	19.0	18	28.6
Medium	3	4.2	3	4.2	11	15.5	5	7.0	8	11.3
Large	1	2.8	0	0.0	8	22.2	4	11.1	7	19.4
subtotal	*6*	3.5	10	5.9	26	15.3	21	12.4	33	19.4
others										
Set up guidelines for IT usage										
Small	0	0.0	0	0.0	2	3.2	4	6.3	0	0.0
Medium	2	2.8	0	0.0	0	0.0	3	4.2	5	7.0
Large	6	16.7	1	2.8	0	0.0	3	8.3	4	11.1
subtotal	*8*	4.7	1	0.6	2	1.2	10	5.9	9	5.3
Keep up with IT development in the society										
Small	0	0.0	0	0.0	0	0.0	0	0.0	4	6.3
Medium	2	2.8	0	0.0	3	4.2	2	2.8	2	2.8
Large	1	2.8	1	2.8	1	2.8	0	0.0	1	2.8
subtotal	*3*	1.8	1	0.6	4	2.4	2	1.2	7	4.1
others										
Small	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Medium	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Large	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
subtotal	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table A28: NGO by size by considerations in development of cross agency CIS

	Very important		Fairly important		Fairly unimportant		Very unimportant		Don't know	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
To system is better able to help the service user directly										
Small	25	39.7	35	55.6	2	3.2	0	0.0	2	3.2
Medium	24	33.8	44	62.0	3	4.2	0	0.0	0	0.0
Large	22	61.1	14	38.9	0	0.0	0	0.0	0	0.0
subtotal	71	41.8	93	54.7	5	2.9	0	0.0	2	1.2
The system is able to coordinate the various need of the service user, and enables more effective resource allocation										
Small	21	33.3	37	58.7	4	6.3	0	0.0	2	3.2
Medium	24	33.8	44	62.0	3	4.2	0	0.0	0	0.0
Large	24	66.7	12	33.3	0	0.0	0	0.0	0	0.0
subtotal	*69*	40.6	93	54.7	7	4.1	0	0.0	2	1.2
The system can reduce the risk of abuse of the service										
Small	12	19.0	39	61.9	7	11.1	4	6.3	2	3.2
Medium	17	23.9	42	59.2	12	16.9	0	0.0	0	0.0
Large	11	30.6	19	52.8	6	16.7	0	0.0	0	0.0
subtotal	*40*	23.5	100	58.8	25	14.7	4	2.4	2	1.2
Guidelines to access to information must be spelled out clearly										
Small	25	39.7	35	55.6	2	3.2	0	0.0	2	3.2
Medium	38	53.5	32	45.1	2	2.8	0	0.0	0	0.0
Large	29	80.6	7	19.4	0	0.0	0	0.0	0	0.0
subtotal	*92*	54.1	74	43.5	4	2.4	0	0.0	2	1.2
Must obtain the consent of the service users										
Small	25	39.7	35	55.6	0	0.0	2	3.2	2	3.2
Medium	32	45.1	33	46.5	6	8.5	0	0.0	0	0.0
Large	28	77.8	8	22.2	0	0.0	0	0.0	0	0.0
subtotal	*85*	50.0	76	44.7	6	3.5	2	1.2	2	1.2
Must inform the service users on who and what information would be shared										
Small	28	44.4	32	50.8	2	3.2	0	0.0	2	3.2
Medium	29	40.8	38	53.5	5	7.0	0	0.0	0	0.0
Large	26	72.2	10	27.8	0	0.0	0	0.0	0	0.0
subtotal	*83*	48.8	80	47.1	7	4.1	0	0.0	2	1.2
The privacy of the service users must be protected										
Small	39	61.9	23	36.5	0	0.0	0	0.0	2	3.2
Medium	51	71.8	20	28.2	0	0.0	0	0.0	0	0.0
Large	29	80.6	7	19.4	0	0.0	0	0.0	0	0.0
subtotal	*119*	70.0	50	29.4	0	0.0	0	0.0	2	1.2
others										
Small	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Medium	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Large	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
subtotal	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table A29: NGO by size by view on launching CIS in next 3 years

View on launching CIS in coming 3 years	Size							
	Small		Medium		Large		Total	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Strongly agree	9	13.9	12	17.0	6	15.4	26	15.5
Somewhat agree	18	27.8	15	21.3	10	26.9	42	24.9
Somewhat disagree*	30	47.2	39	55.3	18	50.0	87	51.2
Cost incurred	*23*	*76.5*	*27*	*69.2*	*11*	*61.1*	*61*	*70.1*
Manpower involved	*26*	*88.2*	*27*	*69.2*	*12*	*69.2*	*66*	*75.7*
Management of confidential data	*25*	*82.4*	*29*	*73.1*	*17*	*92.3*	*70*	*80.2*
Not necessary	*2*	*5.9*	*8*	*19.2*	*3*	*15.4*	*12*	*13.9*
other	*2*	*5.9*	*2*	*3.8*	*3*	*15.4*	*6*	*6.9*
strongly disagree*	7	11.1	5	6.4	3	7.7	14	8.4
Cost incurred	*5*	*75.0*	*3*	*66.7*	*0*	*0.0*	*8*	*57.8*
Manpower involved	*2*	*25.0*	*3*	*66.7*	*0*	*0.0*	*5*	*33.4*
Management of confidential data	*2*	*25.0*	*3*	*66.7*	*1*	*50.0*	*6*	*43.0*
Not necessary	*4*	*50.0*	*5*	*100.0*	*1*	*50.0*	*9*	*65.8*
other	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*	*0*	*0.0*

**can choose more than one option*

Table A30: NGO by size by knowledge on objectives of IT strategy

	Know very well		Know fairly well		Do not know very well		Do not know at all		Not aware of this strategy	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Improvement in infrastructure to enhance work efficiency and internal administration										
Small	4	6.3	21	33.3	28	44.4	11	17.5	14	22.2
Medium	8	11.3	30	42.3	26	36.6	8	11.3	8	11.3
Large	6	16.7	22	61.1	8	22.2	0	0.0	1	2.8
subtotal	18	10.6	73	42.9	62	36.5	19	11.2	23	13.5
Encourage continuous and expanding use of email and internet websites for communication										
Small	2	3.2	28	44.4	23	36.5	11	17.5	14	22.2
Medium	5	7.0	36	50.7	24	33.8	6	8.5	8	11.3
Large	6	16.7	22	61.1	8	22.2	0	0.0	3	8.3
subtotal	*13*	7.6	86	50.6	55	32.4	17	10.0	25	14.7
Underpin the Gov't's Digital 21 Strategy, support for IT initiatives on bridging the digital divide of elders, disabled persons and disadvantaged individuals										
Small	2	3.2	19	30.2	25	39.7	18	28.6	16	25.4
Medium	2	2.8	24	33.8	33	46.5	12	16.9	14	19.7
Large	1	2.8	19	52.8	15	41.7	0	0.0	6	16.7
subtotal	*5*	2.9	62	36.5	73	42.9	30	17.6	36	21.2
More emphasis on developing IT applications to enable service delivery										
Small	2	3.2	23	36.5	26	41.3	12	19.0	14	22.2
Medium	0	0.0	26	36.6	41	57.7	5	7.0	8	11.3
Large	3	8.3	24	66.7	10	27.8	0	0.0	1	2.8
subtotal	*5*	2.9	73	42.9	77	45.3	17	10.0	23	13.5
Development of shared-use and common applications										
Small	0	0.0	9	14.3	37	58.7	18	28.6	14	22.2
Medium	0	0.0	14	19.7	47	66.2	11	15.5	15	21.1
Large	0	0.0	15	41.7	17	47.2	4	11.1	4	11.1
subtotal	*0*	0.0	38	22.4	101	59.4	33	19.4	33	19.4
Laying down policy statements to provide vision, mission and value on human-ware development										
Small	0	0.0	11	17.5	35	55.6	18	28.6	14	22.2
Medium	0	0.0	17	23.9	44	62.0	11	15.5	12	16.9
Large	1	2.8	14	38.9	17	47.2	4	11.1	3	8.3
subtotal	*1*	0.6	42	24.7	96	56.5	33	19.4	29	17.1
Make good use of the service provided by the ITRC										
Small	0	0.0	28	44.4	23	36.5	12	19.0	14	22.2
Medium	3	4.2	30	42.3	33	46.5	5	7.0	8	11.3
Large	1	2.8	25	69.4	6	16.7	4	11.1	3	8.3

	Know very well		Know fairly well		Do not know very well		Do not know at all		Not aware of this strategy	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
subtotal	*4*	2.4	83	48.8	62	36.5	21	12.4	25	14.7
Develop IT strategy suitable to their agencies and at their own pace										
Small	2	3.2	11	17.5	37	58.7	14	22.2	14	22.2
Medium	2	2.8	20	28.2	39	54.9	11	15.5	15	21.1
Large	1	2.8	22	61.1	8	22.2	4	11.1	3	8.3
subtotal	*5*	2.9	53	31.2	84	49.4	29	17.1	32	18.8

Table A31: NGO by size by helpfulness of the IT Strategy objectives

	Very helpful		Fairly helpful		Not quite helpful		Not helpful at all		Not aware of this strategy	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Improvement in infrastructure to enhance work efficiency and internal administration										
Small	11	17.5	33	52.4	5	7.9	0	0.0	14	22.2
Medium	18	25.4	33	46.5	9	12.7	8	11.3	8	11.3
Large	15	41.7	18	50.0	1	2.8	0	0.0	1	2.8
subtotal	44	25.9	84	49.4	15	8.8	8	4.7	23	13.5
Encourage continuous and expanding use of email and internet websites for communication										
Small	4	6.3	37	58.7	9	14.3	0	0.0	14	22.2
Medium	12	16.9	36	50.7	12	16.9	3	4.2	8	11.3
Large	15	41.7	17	47.2	1	2.8	0	0.0	3	8.3
subtotal	*31*	18.2	90	52.9	22	12.9	3	1.8	25	14.7
Underpin the Gov't's Digital 21 Strategy, support for IT initiatives on bridging the digital divide of elders, disabled persons and disadvantaged individuals										
Small	0	0.0	26	41.3	21	33.3	0	0.0	16	25.4
Medium	0	0.0	33	46.5	20	28.2	5	7.0	14	19.7
Large	6	16.7	18	50.0	7	19.4	0	0.0	6	16.7
subtotal	*6*	3.5	77	45.3	48	28.2	5	2.9	36	21.2
More emphasis on developing IT applications to enable service delivery										
Small	9	14.3	32	50.8	9	14.3	0	0.0	14	22.2
Medium	2	2.8	50	70.4	9	12.7	3	4.2	8	11.3
Large	10	27.8	19	52.8	6	16.7	0	0.0	1	2.8
subtotal	*21*	12.4	101	59.4	24	14.1	3	1.8	23	13.5
Development of shared-use and common applications										
Small	2	3.2	30	47.6	18	28.6	0	0.0	14	22.2
Medium	0	0.0	32	45.1	20	28.2	5	7.0	15	21.1
Large	1	2.8	17	47.2	11	30.6	3	8.3	4	11.1
subtotal	*3*	1.8	79	46.5	49	28.8	8	4.7	33	19.4
Laying down policy statements to provide vision, mission and value on human-ware development										
Small	4	6.3	33	52.4	11	17.5	2	3.2	14	22.2
Medium	2	2.8	39	54.9	15	21.1	3	4.2	12	16.9
Large	10	27.8	18	50.0	4	11.1	1	2.8	3	8.3
subtotal	*16*	9.4	90	52.9	30	17.6	6	3.5	29	17.1
Make good use of the service provided by the ITRC										
Small	4	6.3	40	63.5	5	7.9	0	0.0	14	22.2
Medium	3	4.2	44	62.0	14	19.7	3	4.2	8	11.3
Large	1	2.8	21	58.3	11	30.6	0	0.0	3	8.3
subtotal	*8*	4.7	105	61.8	30	17.6	3	1.8	25	14.7
Develop IT strategy suitable to their agencies and at their own pace										
Small	4	6.3	37	58.7	7	11.1	2	3.2	14	22.2
Medium	3	4.2	38	53.5	12	16.9	3	4.2	15	21.1
Large	12	33.3	15	41.7	6	16.7	0	0.0	3	8.3
subtotal	*19*	11.2	90	52.9	25	14.7	5	2.9	32	18.8

Table A32: NGO by size by importance of IT strategy

	Very important		Fairly important		Fairly unimportant		Very unimportant		Don't know	
*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Provide a direction in IT development for the welfare sector										
Small	9	14.3	51	81.0	2	3.2	2	3.2	0	0.0
Medium	17	23.9	50	70.4	5	7.0	0	0.0	0	0.0
Large	15	41.7	19	52.8	1	2.8	0	0.0	0	0.0
subtotal	41	24.1	120	70.6	8	4.7	2	1.2	0	0.0
Provide guidelines for prioritization of resources										
Small	19	30.2	42	66.7	0	0.0	2	3.2	0	0.0
Medium	26	36.6	41	57.7	5	7.0	0	0.0	0	0.0
Large	22	61.1	14	38.9	0	0.0	0	0.0	0	0.0
subtotal	*67*	39.4	97	57.1	5	2.9	2	1.2	0	0.0
Help to reduce digital divide										
Small	0	0.0	46	73.0	14	22.2	2	3.2	2	3.2
Medium	6	8.5	51	71.8	14	19.7	0	0.0	0	0.0
Large	8	22.2	21	58.3	7	19.4	0	0.0	0	0.0
subtotal	*14*	8.2	118	69.4	35	20.6	2	1.2	2	1.2
Help to improve service effectiveness										
Small	21	33.3	40	63.5	0	0.0	2	3.2	0	0.0
Medium	24	33.8	39	54.9	8	11.3	0	0.0	0	0.0
Large	19	52.8	14	38.9	3	8.3	0	0.0	0	0.0
subtotal	*64*	37.6	93	54.7	11	6.5	2	1.2	0	0.0
Help to expand e-service										
Small	16	25.4	37	58.7	9	14.3	2	3.2	0	0.0
Medium	8	11.3	48	67.6	15	21.1	0	0.0	0	0.0
Large	7	19.4	22	61.1	7	19.4	0	0.0	0	0.0
subtotal	*31*	18.2	107	62.9	31	18.2	2	1.2	0	0.0
Help to share client information across agencies										
Small	5	7.9	40	63.5	16	25.4	2	3.2	0	0.0
Medium	11	15.5	36	50.7	20	28.2	5	7.0	0	0.0
Large	6	16.7	22	61.1	7	19.4	1	2.8	0	0.0
subtotal	*22*	12.9	98	57.6	43	25.3	8	4.7	0	0.0
others										
Small	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Medium	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Large	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
subtotal	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

**can choose more than one option*

Table A33: NGO by size by views on role of different stakeholders

	Hardware vendor		Software vendor		Consultancy company		SWD		Agency management		Agency staff		Service users		ITRC				OGCIO				others	
																	Don't know				Don't know			
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Provide a direction in IT development for the welfare sector																								
S	35	55.6	32	50.8	35	55.6	60	95.2	60	95.2	44	69.8	28	44.4	30	47.6	16	25.4	11	17.5	46	73.0	0	0.0
M	38	53.5	29	40.8	48	67.6	65	91.5	60	84.5	44	62.0	30	42.3	44	62.0	11	15.5	21	29.6	44	62.0	0	0.0
L	15	41.7	11	30.6	21	58.3	36	100.0	36	100.0	29	80.6	22	61.1	18	50.0	1	2.8	19	52.8	7	19.4	0	0.0
ST	88	51.8	72	42.4	104	61.2	161	94.7	156	91.8	117	68.8	80	47.1	92	54.1	28	16.5	51	30.0	97	57.1	0	0.0
Laying down relevant standards and guidelines																								
S	25	39.7	23	36.5	37	58.7	60	95.2	63	100.0	51	81.0	32	50.8	30	47.6	16	25.4	9	14.3	46	73.0	0	0.0
M	26	36.6	24	33.8	48	67.6	60	84.5	68	95.8	41	57.7	15	21.1	35	49.3	11	15.5	17	23.9	44	62.0	0	0.0
L	6	16.7	4	11.1	15	41.7	33	91.7	35	97.2	19	52.8	14	38.9	18	50.0	1	2.8	21	58.3	7	19.4	0	0.0
ST	57	33.5	51	30.0	100	58.8	153	90.0	166	97.6	111	65.3	61	35.9	83	48.8	28	16.5	47	27.6	97	57.1	0	0.0
Provide subsidy and resources																								
S	40	63.5	35	55.6	35	55.6	61	96.8	53	84.1	25	39.7	26	41.3	28	44.4	16	25.4	11	17.5	46	73.0	0	0.0
M	30	42.3	30	42.3	20	28.2	71	100.0	56	78.9	15	21.1	6	8.5	36	50.7	11	15.5	17	23.9	44	62.0	0	0.0
L	10	27.8	7	19.4	10	27.8	36	100.0	33	91.7	3	8.3	3	8.3	10	27.8	1	2.8	15	41.7	7	19.4	0	0.0
ST	80	47.1	72	42.4	65	38.2	168	98.8	142	83.5	43	25.3	35	20.6	74	43.5	28	16.5	43	25.3	97	57.1	0	0.0
Provision / coordination of technical support																								
S	54	85.7	53	84.1	47	74.6	49	77.8	49	77.8	30	47.6	25	39.7	33	52.4	16	25.4	11	17.5	46	73.0	0	0.0
M	57	80.3	54	76.1	53	74.6	35	49.3	38	53.5	20	28.2	6	8.5	50	70.4	11	15.5	14	19.7	44	62.0	0	0.0
L	29	80.6	28	77.8	30	83.3	14	38.9	12	33.3	17	47.2	1	2.8	25	69.4	1	2.8	14	38.9	7	19.4	0	0.0
ST	140	82.4	135	79.4	130	76.5	98	57.6	99	58.2	67	39.4	32	18.8	108	63.5	28	16.5	39	22.9	97	57.1	0	0.0
Provision / coordination of sharing platform in the welfare sector																								
S	32	50.8	28	44.4	37	58.7	61	96.8	54	85.7	26	41.3	23	36.5	37	58.7	16	25.4	11	17.5	46	73.0	0	0.0
M	38	53.5	26	36.6	45	63.4	59	83.1	51	71.8	30	42.3	11	15.5	53	74.6	11	15.5	15	21.1	44	62.0	0	0.0
L	10	27.8	8	22.2	19	52.8	32	88.9	26	72.2	11	30.6	4	11.1	28	77.8	1	2.8	19	52.8	7	19.4	0	0.0
ST	80	47.1	62	36.5	101	59.4	152	89.4	131	77.1	67	39.4	38	22.4	118	69.4	28	16.5	45	26.5	97	57.1	0	0.0
Provide relevant training																								
S	56	88.9	39	61.9	44	69.8	46	73.0	51	81.0	30	47.6	21	33.3	32	50.8	16	25.4	9	14.3	46	73.0	0	0.0
M	54	76.1	25	35.2	51	71.8	48	67.6	56	78.9	32	45.1	15	21.1	50	70.4	11	15.5	14	19.7	44	62.0	0	0.0
L	29	80.6	36	100.0	19	52.8	21	58.3	28	77.8	11	30.6	6	16.7	28	77.8	1	2.8	12	33.3	7	19.4	0	0.0
ST	139	81.8	100	58.8	114	67.1	115	67.6	135	79.4	73	42.9	42	24.7	110	64.7	28	16.5	35	20.6	97	57.1	0	0.0
Narrowing digital divide																								
S	28	44.4	26	41.3	32	50.8	49	77.8	44	69.8	35	55.6	39	61.9	28	44.4	16	25.4	9	14.3	46	73.0	0	0.0
M	33	46.5	29	40.8	42	59.2	57	80.3	51	71.8	44	62.0	32	45.1	48	67.6	11	15.5	18	25.4	44	62.0	0	0.0
L	25	69.4	22	61.1	22	61.1	30	83.3	28	77.8	26	72.2	21	58.3	25	69.4	1	2.8	24	66.7	7	19.4	0	0.0
ST	86	50.6	77	45.3	96	56.5	136	80.0	123	72.4	105	61.8	92	54.1	101	59.4	28	16.5	51	30.0	97	57.1	0	0.0

	Hardware vendor		Software vendor		Consultancy company		SWD		Agency management		Agency staff		Service users		ITRC				OGCIO				others	
																	Don't know				Don't know			
Improve service effectiveness																								
S	37	58.7	37	58.7	40	63.5	58	92.1	61	96.8	53	84.1	37	58.7	28	44.4	16	25.4	9	14.3	46	73.0	0	0.0
M	29	40.8	26	36.6	44	62.0	57	80.3	66	93.0	59	83.1	35	49.3	41	57.7	11	15.5	12	16.9	44	62.0	0	0.0
L	21	58.3	15	41.7	21	58.3	30	83.3	36	100.0	35	97.2	25	69.4	18	50.0	1	2.8	14	38.9	7	19.4	0	0.0
ST	87	51.2	78	45.9	105	61.8	145	85.3	163	95.9	147	86.5	97	57.1	87	51.2	28	16.5	35	20.6	97	57.1	0	0.0

**can choose more than one option*

Appendix IV

Tables on questionnaire survey for service units

Table U1: Availability of Unit Website by NGO size

Size	Unit Website					
	Yes		No		Total	
	n	%	*n*	%	*n*	%
Small	70	63.5	40	36.5	111	100.0
Medium	247	70.5	104	29.5	351	100.0
Large	639	44.3	804	55.7	1443	100.0
Total	956	50.2	948	49.8	1904	100.0

Table U2: Number of Registered Social Worker (RSW) by NGO Size

Size	RSW		Other Staff	
	Full time	Part time	Full time	Part time
	Mean		Mean	
Small	1.9	1.4	8.6	2.6
Medium	5.2	1.1	18.4	3.9
Large	5.7	1.2	28.0	4.2
Total	5.5	1.2	25.1	4.1

Table U3: Number of Full-Time Staff per Computer / Notebook by NGO Size

Size	No. of computer / notebook per full-time staff in need									
	1		2-3		4 or more		missing		Total	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Small	59	53.7	31	28.0	20	18.3	0	0.0	111	100.0
Medium	144	41.2	161	46.0	43	12.2	2	0.5	351	100.0
Large	573	39.7	675	46.8	182	12.6	12	0.9	1443	100.0
Total	777	40.8	868	45.6	245	12.9	14	0.7	1904	100.0

Table U4: Number of Computers / Notebook for Service Users by NGO Size

Size	Number of Computers / Notebook for Service Users
	Mean
Small	8.1
Medium	7.1
Large	6.6
Total	6.8

Table U5: Availability of Intranet by NGO Size

Size	Unit Website					
	Yes		No		Total	
	n	%	*n*	%	*n*	%
Small	69	61.8	42	38.2	111	100.0
Medium	272	77.6	79	22.4	351	100.0
Large	1199	83.1	243	16.9	1443	100.0
Total	1540	80.9	364	19.1	1904	100.0

Table U6: Intranet Connection System by NGO Size

	Size							
	Small		Medium		Large		Total	
**can choose more than one*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Local Area Network (LAN)	37	53.7	218	79.9	974	81.2	1228	79.8
Wireless LAN system	42	61.6	132	48.4	426	35.5	600	38.9
Others	0	0.0	0	0.0	60	5.0	60	3.9
Don't know	5	6.7	30	11.0	155	12.9	189	12.3

Table U7: Operating System Used by NGO Size

	Size							
	Small		Medium		Large		Total	
**can choose more than one*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Windows	111	100.0	351	100.0	1443	100.0	1904	100.0
Mac	13	11.3	21	6.0	89	6.1	122	6.4
Open source	3	2.4	5	1.4	74	5.1	81	4.3
Others	0	0.0	0	0.0	0	0.0	0	0.0
Don't know	0	0.0	0	0.0	0	0.0	0	0.0

Table U8: Windows Version Used by NGO Size

	Size							
	Small		Medium		Large		Total	
**can choose more than one*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Windows 2000	7	6.3	41	11.7	162	11.3	210	11.0
Windows XP	75	67.4	272	77.7	1132	78.5	1479	77.7
Windows Server 2003	5	4.9	73	20.9	224	15.5	303	15.9
Windows Vista	39	35.2	104	29.6	410	28.4	553	29.0
Windows 7	68	61.0	262	74.7	979	67.9	1308	68.7
Don't know	0	0.0	17	4.8	18	1.3	35	1.8

Table U9: Mac Version Used by NGO Size

	Size							
	Small		Medium		Large		Total	
**can choose more than one*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Mac OS	5	36.3	0	0.0	55	62.3	60	48.9
Mac OS X	5	41.9	16	75.5	18	20.3	39	32.0
Don't know	3	21.9	5	24.5	22	24.3	29	24.1

Table U10: Version of Word Processing used by NGO Size

	Size							
	Small		Medium		Large		Total	
**can choose more than one*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Microsoft Office before 2007	45	41.0	246	70.1	928	64.4	1220	64.1
Microsoft Office 2007	76	68.1	278	79.2	998	69.2	1351	71.0
Microsoft Office 2010	45	40.2	115	32.8	540	37.4	700	36.7
Office 365	2	1.7	0	0.0	1	0.1	3	0.2
Others	0	0.0	3	0.8	5	0.3	8	0.4
Don't know	0	0.0	7	2.0	2	0.1	9	0.5

Table U11: Financial Management (FM) Software Used by NGO Size

	Size							
	Small		Medium		Large		Total	
**can choose more than one*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Tailor-made by vendor for agency / welfare sector	2	1.7	100	28.5	490	33.9	592	31.1
Developed by agency for self-used	7	6.3	7	1.9	248	17.2	262	13.7
FM software offered in the market with customization	6	5.9	26	7.5	122	8.5	155	8.1
FM software offered in the market	15	13.6	87	24.9	45	3.1	147	7.7
General software offered in the market	59	53.4	133	38.1	585	40.5	777	40.8
Not using IT application	15	13.9	37	10.5	68	4.7	120	6.3
Don't know	16	14.2	36	10.2	235	16.3	286	15.0

Table U12: Human Resource Management (HRM) Software used by NGO Size

	Size							
	Small		Medium		Large		Total	
**can choose more than one*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Tailor-made by vendor for agency / welfare sector	2	1.7	30	8.5	320	22.2	352	18.5
Developed by agency for self-used	5	4.2	4	1.2	220	15.2	229	12.0
FM software offered in the market with customization	0	0.0	57	16.2	60	4.2	117	6.1
FM software offered in the market	0	0.0	10	2.7	14	1.0	24	1.3
General software offered in the market	56	50.9	96	27.3	389	27.0	542	28.5
Not using IT application	45	41.0	99	28.2	167	11.6	311	16.4
Don't know	5	4.6	50	14.2	358	24.8	413	21.7

Table U13: Information Security Software Used by NGO Size

	Size							
	Small		Medium		Large		Total	
	n	%	*n*	%	*n*	%	*n*	%
Application offered in the market	38	34.2	206	58.8	953	66.1	1197	62.9
Tailor-made specifically for the agency	0	0.0	5	1.3	98	6.8	103	5.4
Not using IT application	51	46.3	68	19.4	92	6.4	211	11.1
Don't know	22	19.5	72	20.6	299	20.7	393	20.6
Total	111	100.0	351	100.0	1443	100.0	1904	100.0

Table U14: Other Application for Management and Administration Used by NGO Size

	Size							
	Small		Medium		Large		Total	
	n	%	*n*	%	*n*	%	*n*	%
Yes	10	9.1	14	3.9	147	10.2	171	9.0
No	92	82.6	291	82.9	1049	72.7	1431	75.2
Don't know	9	8.3	46	13.2	247	17.1	302	15.9
Total	111	100.0	351	100.0	1443	100.0	1904	100.0

Table U15: Level of Satisfaction with IT Systems by NGO Size

	Very satisfied		Fairly satisfied		Fairly unsatisfied		Very unsatisfied		NA		Missing	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Infrastructure												
Small	0	0.0	77	69.3	20	18.2	5	4.1	3	2.4	7	6.0
Medium	39	11.0	246	70.0	37	10.5	10	2.8	4	1.0	16	4.6
Large	193	13.4	998	69.2	201	13.9	34	2.4	5	0.4	10	0.7
Subtotal	232	12.2	1321	69.4	258	13.5	49	2.6	12	0.6	33	1.7
Management and administration												
Small	0	0.0	42	37.6	47	42.8	0	0.0	15	13.7	7	6.0
Medium	19	5.6	187	53.3	60	17.2	21	5.9	47	13.4	16	4.6
Large	111	7.7	870	60.3	275	19.1	52	3.6	119	8.3	15	1.1
Subtotal	130	6.8	1098	57.7	383	20.1	73	3.8	181	9.5	38	2.0
Service delivery												
Small	0	0.0	51	46.4	45	40.4	0	0.0	8	7.2	7	6.0
Medium	19	5.6	223	63.7	42	12.0	19	5.4	29	8.2	18	5.2
Large	95	6.6	852	59.1	280	19.4	46	3.2	154	10.7	14	1.0
Subtotal	115	6.0	1127	59.2	367	19.3	65	3.4	191	10.0	39	2.1

Table U16: Type of Internet Connection by NGO Size

	Size							
	Small		Medium		Large		Total	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Dial-up connection	0	0.0	2	0.5	4	0.3	6	0.3
Broadband	95	85.4	316	90.0	1313	91.0	1724	90.5
Licensed line	7	6.5	13	3.6	117	8.1	137	7.2
Wireless connection provided by vendors	15	13.6	25	7.1	99	6.9	139	7.3
Others	0	0.0	0	0.0	0	0.0	0	0.0
Don't know	11	9.7	11	3.0	44	3.0	65	3.4
Total								

Table U17: Use of Client Information System (CIS) by NGO Size

	Size							
	Small		Medium		Large		Total	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Yes	19	16.7	132	37.7	750	52.0	901	47.3
No	92	83.3	217	61.9	686	47.6	995	52.3
Missing	0	0.0	2	0.5	6	0.4	8	0.4
Total	111	100.0	351	100.0	1443	100.0	1904	100.0

Table U19: CIS Application System Used by NGO Size

	Size							
	Small		Medium		Large		Total	
**can choose more than one*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Tailor-made by vendor for agency / welfare sector	4	20.8	84	63.9	355	47.3	443	49.2
Developed by agency for self-used	0	0.0	12	9.2	262	34.9	274	30.4
CIS software offered in the market with customization	5	25.2	23	17.7	27	3.5	55	6.1
CIS software offered in the market	3	14.5	0	0.0	27	3.6	29	3.3
General software offered in the market	5	24.6	29	22.0	199	26.5	232	25.8
Not using IT application	3	14.8	6	4.3	9	1.2	17	1.9
Don't know	0	0.0	1	0.9	68	9.0	69	7.6

Table U20: Key Function(s) of CIS by NGO Size

	Size							
	Small		Medium		Large		Total	
**can choose more than one*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Administrative purpose	14	74.8	114	86.1	633	84.3	760	84.4
Provide service statistics and outcome data to funder	5	24.9	72	54.7	395	52.6	472	52.4
Record on intervention	7	35.6	81	61.3	407	54.3	495	54.9
Case based internal information sharing	5	29.4	76	57.4	361	48.2	443	49.1
Others	2	10.4	18	13.5	63	8.3	82	9.1

Table U21: Other IT Applications Used by NGO Size

	Size							
	Small		Medium		Large		Total	
**can choose more than one*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Membership system	66	74.4	164	55.5	930	72.2	1160	69.4
Activity registration system	49	55.0	103	34.9	608	47.2	760	45.4
Knowledge exchange	13	14.0	60	20.4	527	40.9	600	35.9
Online donation	4	4.3	26	8.9	208	16.1	238	14.2
Direct service provision	8	9.0	14	4.7	94	7.3	116	7.0
Indirect service provision	10	11.6	110	37.4	345	26.8	466	27.9
Others	0	0.0	3	0.9	32	2.5	35	2.1
Nil	22	19.5	55	15.7	155	10.7	232	12.2

Table U22: IT Staff with Relevant Qualification by NGO Size

	Size							
	Small		Medium		Large		Total	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Yes	15	13.1	134	38.3	200	13.9	349	18.3
No	94	85.2	211	60.1	1232	85.4	1537	80.7
Missing	2	1.7	6	1.7	11	0.7	18	1.0
Total	111	100.0	351	100.0	1443	100.0	1904	100.0

Table U23: Responsibilities of IT Staff with Relevant Qualification by NGO Size

	Management	Technical support	Others
Size	Mean	Mean	Mean
Small	1.3	1.0	0.0
Medium	1.0	1.3	1.1
Large	1.2	2.3	1.1
Total	1.1	1.9	1.1

Table U24: IT staff Without Relevant Qualification by NGO Size

	Size							
	Small		**Medium**		**Large**		**Total**	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Yes	71	63.6	171	48.8	1019	70.7	1261	66.2
No	40	36.4	177	50.4	423	29.3	640	33.6
Missing	0	0.0	3	0.8	0	0.0	3	0.1
Total	111	100.0	351	100.0	1443	100.0	1904	100.0

Table U25: Responsibilities of IT Staff Without Relevant Qualification

	Size							
	Small		**Medium**		**Large**		**Total**	
**can choose more than one*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Management and support for infrastructure	46	65.1	117	68.2	748	73.4	910	72.2
Maintenance of infrastructure	30	43.0	80	47.0	531	52.1	642	50.9
Managing management and adm. applications	16	22.9	36	21.0	281	27.6	334	26.5
Managing applications for service provision	25	36.1	81	47.3	290	28.5	397	31.5
Others	0	0.0	11	6.7	43	4.2	54	4.3

Table U26: Organization / Company Providing Support in Previous Year by NGO Size

	every time		Most of the time		Half of the time		Less than half of the time		never		Don't know this organization/ company	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Hardware vendors												
Small	2	1.7	7	6.0	10	8.9	34	30.3	44	39.5	15	13.6
Medium	12	3.4	40	11.4	47	13.3	101	28.7	101	28.7	51	14.5
Large	23	1.6	161	11.2	142	9.8	491	34.0	500	34.7	126	8.7
Sub-total	36	1.9	208	10.9	198	10.4	625	32.8	644	33.8	192	10.1
Software vendor												
Small	2	1.7	15	13.1	5	4.1	29	25.7	44	39.6	17	15.7
Medium	7	2.1	35	10.0	25	7.1	105	30.0	130	37.1	48	13.7
Large	13	0.9	80	5.6	120	8.3	474	32.9	617	42.7	139	9.6
Sub-total	22	1.2	130	6.8	149	7.8	608	31.9	790	41.5	204	10.7
IT consultancy / IT solution company												
Small	4	3.5	17	15.5	7	6.6	23	21.0	40	36.1	19	17.3
Medium	19	5.3	74	21.1	31	8.8	90	25.7	98	27.8	39	11.3
Large	16	1.1	68	4.7	83	5.8	224	15.5	831	57.6	221	15.3
Sub-total	39	2.0	159	8.3	121	6.4	338	17.7	968	50.8	279	14.7
ITRC												
Small	0	0.0	2	1.7	5	4.2	24	21.6	56	50.4	24	22.1
Medium	0	0.0	49	14.0	19	5.3	61	17.4	152	43.2	71	20.1
Large	14	1.0	42	2.9	45	3.2	188	13.1	924	64.0	229	15.9
Sub-total	14	0.7	93	4.9	69	3.6	273	14.4	1131	59.4	324	17.0
Others												
Small	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0		
Medium	3	0.8	0	0.0	0	0.0	0	0.0	0	0.0		
Large	36	2.5	18	1.2	5	0.4	5	0.3	0	0.0		
Sub-total	38	2.0	18	0.9	5	0.3	5	0.3	0	0.0		

Table U27: Sufficiency in IT Support by NGO Size

	Very sufficient		Fairly sufficient		Fairly insufficient		Very insufficient		NA		Missing	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Hardware maintenance												
Small	2	1.7	42	38.3	32	29.1	32	29.2	2	1.7	0.0	0.0
Medium	3	0.8	170	48.4	126	36.0	43	12.3	9	2.6	0.0	0.0
Large	50	3.5	748	51.9	461	32.0	161	11.1	23	1.6	0.0	0.0
Sub-total	55	2.9	960	50.4	620	32.5	236	12.4	33	1.8	0.0	0.0
Software application and update												
Small	0	0.0	37	33.5	41	36.8	31	28.0	2	1.7	0.0	0.0
Medium	0	0.0	167	47.5	141	40.2	34	9.7	9	2.6	0.0	0.0
Large	35	2.4	647	44.8	568	39.4	155	10.7	38	2.6	0.0	0.0
Sub-total	35	1.8	851	44.7	750	39.4	220	11.6	49	2.5	0.0	0.0
Maintenance for management and administration applications												
Small	2	1.7	18	16.5	35	31.5	29	25.9	27	24.3	0	0.0
Medium	0	0.0	136	38.7	111	31.6	39	11.0	66	18.7	0	0.0
Large	35	2.4	645	44.7	346	24.0	179	12.4	235	16.3	4	0.3
Sub-total	37	1.9	798	41.9	492	25.8	246	12.9	327	17.2	4	0.2
Maintenance for intranet												
Small	0	0.0	16	14.8	39	35.6	19	16.8	36	32.8	0	0.0
Medium	5	1.4	146	41.6	107	30.5	49	14.1	44	12.4	0	0.0
Large	50	3.5	724	50.2	332	23.0	136	9.4	198	13.8	2	0.1
Sub-total	55	2.9	886	46.5	478	25.1	203	10.7	278	14.6	2	0.1
Update on staff webpage / website												
Small	2	1.7	25	22.9	34	30.9	15	13.4	32	29.3	2	1.7
Medium	4	1.0	123	35.2	84	24.1	28	7.9	109	31.0	3	0.7
Large	62	4.3	542	37.6	291	20.2	141	9.8	406	28.1	1	0.1
Sub-total	67	3.5	691	36.3	409	21.5	184	9.6	547	28.7	6	0.3
Maintenance on staff webpage / website												
Small	2	1.7	20	18.2	43	39.2	13	11.7	32	29.3	0	0.0
Medium	4	1.0	126	35.9	75	21.3	36	10.2	111	31.5	0	0.0
Large	56	3.9	534	37.0	271	18.8	137	9.5	442	30.7	1	0.1
Sub-total	62	3.2	680	35.7	389	20.4	186	9.8	585	30.8	1	0.1
Update on webpage/ website for service users												
Small	2	1.7	20	18.2	44	39.6	21	19.3	22	19.5	2	1.7
Medium	9	2.5	151	43.0	77	21.9	41	11.7	73	20.8	0	0.0
Large	47	3.3	450	31.2	288	19.9	138	9.6	516	35.8	3	0.2
Sub-total	58	3.0	621	32.6	409	21.5	201	10.5	611	32.1	5	0.3
Maintenance for webpage/ website for service users												
Small	2	1.7	17	15.7	44	39.6	22	19.9	25	23.0	0	0.0
Medium	4	1.2	146	41.7	80	22.9	41	11.7	79	22.5	0	0.0
Large	42	2.9	429	29.7	282	19.5	150	10.4	537	37.2	3	0.2
Sub-total	48	2.5	592	31.1	406	21.3	213	11.2	641	33.7	3	0.2
Professional and technical support for agency IT development and implementation												
Small	2	1.7	23	20.5	20	17.7	39	35.3	27	24.7	0.0	0.0
Medium	2	0.5	134	38.2	80	22.7	62	17.8	73	20.9	0.0	0.0
Large	29	2.0	452	31.3	404	28.0	236	16.3	323	22.4	0.0	0.0
Sub-total	32	1.7	608	31.9	503	26.4	337	17.7	423	22.2	0.0	0.0

Table U28: Level of Satisfaction of Service Users by NGO Size

	Most users not dissatisfied		**Fairly many users not satisfied**		**Less than half users not satisfied**		**Very few users not satisfied**		**NA**		**Missing**	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*		*%*	
Hardware maintenance												
Small	3	2.4	5	4.2	33	29.3	37	33.3	34	30.8	0	0.0
Medium	4	1.1	38	10.8	112	32.1	84	23.9	111	31.6	2	0.5
Large	9	0.6	79	5.5	378	26.2	495	34.3	479	33.2	3	0.2
Sub-total	15	0.8	122	6.4	523	27.4	616	32.3	624	32.7	5	0.3
Software application and update												
Small	0	0.0	13	11.5	24	21.6	42	37.9	32	29.1	0	0.0
Medium	0	0.0	43	12.2	76	21.6	115	32.8	116	32.9	2	0.5
Large	12	0.8	76	5.3	346	24.0	512	35.5	494	34.3	3	0.2
Sub-total	12	0.6	131	6.9	445	23.4	669	35.1	642	33.7	5	0.3
Update on webpage/ website for service users												
Small	0	0.0	0	0.0	29	26.4	38	34.7	43	38.9	0	0.0
Medium	8	2.3	28	8.0	38	10.9	127	36.1	148	42.2	2	0.5
Large	5	0.3	22	1.6	152	10.5	495	34.3	765	53.0	4	0.3
Sub-total	13	0.7	50	2.7	219	11.5	660	34.6	956	50.2	6	0.3
Maintenance for webpage/ website for service users												
Small	0	0.0	3	2.5	27	24.2	35	32.0	46	41.3	0	0.0
Medium	10	2.7	27	7.6	34	9.6	127	36.1	153	43.5	2	0.5
Large	0	0.0	26	1.8	126	8.7	504	34.9	782	54.2	4	0.3
Sub-total	10	0.5	56	2.9	186	9.8	666	35.0	981	51.5	6	0.3

Table U29: Availability of IT Related Document by NGO Size

	Yes		No, but planned to write		No, and have no plan to write		Missing	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Directions in IT Development								
Small	5	4.2	41	37.1	65	58.7	0	0.0
Medium	63	18.0	64	18.1	222	63.3	2	0.5
Large	653	45.3	323	22.4	416	28.9	50	3.5
Sub-total	721	37.9	428	22.5	703	36.9	52	2.7
Standards in infrastructure (including hardware and software)								
Small	6	5.9	27	24.1	78	70.0	0	0.0
Medium	105	30.1	62	17.7	181	51.7	2	0.5
Large	855	59.3	173	12.0	369	25.6	46	3.2
Sub-total	967	50.8	262	13.7	628	33.0	47	2.5
Design of the agency / unit website(s)								
Small	11	10.1	27	24.6	72	65.3	0	0.0
Medium	53	15.1	68	19.4	227	64.7	3	0.8
Large	613	42.5	255	17.7	531	36.8	44	3.0
Sub-total	677	35.5	350	18.4	831	43.6	47	2.5
Standards in protection of the IT systems								
Small	12	10.7	23	20.9	76	68.4	0	0.0
Medium	57	16.3	60	17.1	231	65.8	3	0.8
Large	890	61.7	172	11.9	334	23.2	47	3.2
Sub-total	959	50.4	255	13.4	641	33.6	50	2.6
Standards in protecting data integrity								
Small	12	10.7	38	34.0	61	55.3	0	0.0
Medium	63	17.9	59	16.7	227	64.6	3	0.8
Large	834	57.8	181	12.5	383	26.5	45	3.1
Sub-total	908	47.7	277	14.6	670	35.2	48	2.5
Measures to manage incidents regarding data security								
Small	19	17.2	35	31.4	57	51.4	0	0.0
Medium	73	20.9	73	20.9	202	57.7	2	0.5
Large	923	64.0	140	9.7	342	23.7	37	2.5
Sub-total	1016	53.4	248	13.0	601	31.6	38	2.0
Management responsibilities in data security								
Small	4	3.5	37	33.8	70	62.7	0	0.0
Medium	40	11.3	79	22.5	230	65.7	2	0.5
Large	702	48.7	217	15.0	474	32.9	49	3.4
Sub-total	745	39.2	333	17.5	774	40.7	51	2.7

Table U30: Special Needs of Service Users in Using Computer

Size	Service users with special needs			
	Yes		No	
	n	*%*	*n*	*%*
Small	49	43.8	62	56.2
Medium	144	41.1	207	58.9
Large	688	47.7	754	52.3
Total	881	46.3	1023	53.7

Table U31: Support Provided to Service Users with Special Needs in Using Computer by NGO Size

Size	Yes		No		Don't know	
	n	*%*	*n*	*%*	*n*	*%*
Small	41	37.2	62	56.1	7	6.7
Medium	129	36.9	201	57.2	21	5.9
Large	593	41.1	785	54.4	64	4.5
Total	764	40.1	1048	55.0	92	4.9%

Table U32: Type of Support Provided to Service Users with Special Needs in Using Computer by NGO Size

Size	Yes*					
	Provide training		Installation of software/hardware to increase accessibility		Website accessibility	
	n	*%*	*n*	*%*	*n*	*%*
Small	39	93.6	14	34.8	3	6.4
Medium	118	91.3	40	30.8	16	12.5
Large	530	89.3	191	32.2	67	11.2
Total	687	89.9	245	32.1	86	11.2

**can choose more than one option*

Table U33: Level of Website Accessibility for Service User with Special Needs by NGO Size

Level of accessibility	Small		Medium		Large		Total	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
WCAG2.0 – Level A	0	0.0	12	74.2	0	0.0	12	14.0
WCAG2.0 – Level AA	0	0.0	0	0.0	49	73.7	49	57.5
WCAG2.0 – Level AAA	0	0.0	0	0.0	0	0.0	0	0.0
Other relevant standard	0	0.0	0	0.0	0	0.0	0	0.0
Don't know	3	100.0	4	25.8	18	26.3	24	28.5
Total	3	100.0	16	100.0	67	100.0	86	100.0

Table U34: Services to Facilitate Accessibility to Service Users

	Size							
	Small		Medium		Large		Total	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Yes*	58	52.4	180	51.4	774	53.6	1012	53.2
Provide computers in the centre for service users	51	87.6	168	93.2	726	93.8	945	93.4
Provide peripheral equipment for service users	13	22.3	75	41.4	344	44.5	432	42.6
Discount plan for purchasing of peripheral equipment	0	0.0	2	1.0	65	8.4	67	6.6
Other relevant service	2	3.3	7	3.8	30	3.9	39	3.8
Don't know	0	0.0	0	0.0	17	2.2	17	1.7
No	42	37.9	158	45.0	639	44.3	839	44.1
Don't know	11	9.7	13	3.6	29	2.0	53	2.8

**can choose more than one option*

Table U35: Training Provided to Service Users with Special Needs in Computer Usage in Previous Year

Size	Yes		No		Missing		Total	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Small	48	43.3	63	56.7	0	0.0	111	100.0
Medium	154	43.8	193	55.0	4	1.1	351	100.0
Large	614	42.6	809	56.1	19	1.3	1443	100.0
subtotal	816	42.8	1065	55.9	23	1.2	19.4	100.0

Table U36: Staff Training Provided in the Previous year by NGO Size

Training provided	Size							
	Small		Medium		Large		Total	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Yes*	52	46.6	238	68.0	1259	87.3	1549	81.4
General word processing	20	38.3	102	42.8	896	71.2	1018	65.7
Applications for management and administration	17	33.7	151	63.3	575	45.7	744	48.0
Customized applications for management & admin.	6	12.6	39	16.4	480	38.1	526	33.9
Management of information platform	8	16.3	29	12.4	273	21.7	311	20.1
Computer graphics	21	41.3	25	10.5	387	30.8	434	28.0
Knowledge on recent IT development	2	3.7	16	6.9	135	10.7	154	9.9
Knowledge on IT security	0	0.0	14	6.0	276	21.9	290	18.7
Knowledge on IT usage in the welfare sector	7	13.9	15	6.1	149	11.8	171	11.0
Others	3	5.1	3	1.2	60	4.8	65	4.2
Don't know	0	0.0	6	2.6	28	2.2	34	2.2
No	59	53.4	112	32.0	183	12.7	355	18.6

**can choose more than one option*

Table U37: Sufficiency of Staff Training by NGO Size

	Very sufficient		Fairly sufficient		Fairly insufficient		Highly insufficient		Don't know	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
General word processing										
Small	14	12.6	79	71.1	9	8.1	5	4.1	5	4.1
Medium	17	4.8	283	80.6	44	12.5	2	0.6	5	1.5
Large	132	9.2	1101	76.3	173	12.0	22	1.6	14	0.9
subtotal	163	8.6	1463	76.8	226	11.9	29	1.5	23	1.2
Applications for management and administration										
Small	0	0.0	37	33.6	39	35.5	22	20.0	12	10.9
Medium	3	0.7	193	54.9	99	28.1	15	4.2	42	12.0
Large	46	3.2	812	56.3	355	24.6	83	5.8	146	10.2
subtotal	49	2.6	1042	54.7	493	25.9	120	6.3	201	10.5
Customized applications for management & admin.										
Small	0	0.0	27	24.6	30	27.5	25	22.9	28	25.0
Medium	3	0.7	84	23.8	98	27.9	40	11.3	127	36.2
Large	41	2.9	654	45.3	360	24.9	143	9.9	245	17.0
subtotal	44	2.3	765	40.2	488	25.6	208	10.9	400	21.0
Management of information platform										
Small	5	4.7	27	24.1	35	31.4	28	25.1	16	14.7
Medium	4	1.3	95	27.2	157	44.6	41	11.6	54	15.3
Large	38	2.6	427	29.6	447	31.0	287	19.9	244	16.9
subtotal	48	2.5	549	28.8	638	33.5	355	18.7	314	16.5
Computer graphics										
Small	3	2.4	34	30.6	37	33.1	19	17.1	18	16.7
Medium	0	0.0	137	39.1	121	34.5	44	12.5	49	13.9
Large	16	1.1	475	32.9	566	39.2	228	15.8	158	11.0
subtotal	19	1.0	646	33.9	723	38.0	290	15.2	225	11.8
Knowledge on recent IT development										
Small	0	0.0	24	21.3	34	30.4	40	35.7	14	12.6
Medium	0	0.0	59	16.8	204	58.1	51	14.5	37	10.5
Large	16	1.1	280	19.4	651	45.1	299	20.7	196	13.6
subtotal	16	0.8	363	19.1	888	46.7	390	20.5	247	13.0
Knowledge on IT security										
Small	2	1.7	17	15.5	38	34.6	38	34.4	15	13.9
Medium	4	1.2	63	17.9	180	51.2	60	17.2	44	12.4
Large	37	2.6	417	28.9	593	41.1	212	14.7	184	12.7
subtotal	43	2.3	497	26.1	811	42.6	310	16.3	243	12.8
Knowledge on IT usage in the welfare sector										
Small	0	0.0	19	17.2	44	39.3	32	29.2	16	14.3
Medium	3	0.7	56	15.9	187	53.4	71	20.1	35	9.8
Large	13	0.9	319	22.1	632	43.8	236	16.3	243	16.8
subtotal	15	0.8	394	20.7	863	45.3	338	17.8	293	15.4

Table U38: IT Training Policy for Staff by NGO Size

Training provided	Size							
	Small		Medium		Large		Total	
	n	%	*n*	%	*n*	%	*n*	%
Yes*	56	50.7	224	64.0	1037	71.9	1318	69.2
Providing subsidy for IT courses	41	73.1	188	83.7	594	57.2	822	62.4
Paid leave for attending IT courses	22	38.7	87	38.7	507	48.9	616	46.8
in-house training courses	21	37.2	92	41.2	814	78.4	927	70.3
Others	0	0.0	0	0.0	0	0.0	0	0.0
No	55	49.3	126	36.0	405	28.1	586	30.8

**can choose more than one option*

Table U39: Sufficiency of Staff Training on IT Usage by NGO Size

	Size							
	Small		Medium		Large		Total	
	n	%	*n*	%	*n*	%	*n*	%
Very sufficient	0	0.0	4	1.3	31	2.1	35	1.9
Fairly sufficient	14	12.2	172	49.2	663	45.9	849	44.6
Fairly insufficient	83	74.6	135	38.6	660	45.8	878	46.1
Very insufficient	15	13.1	36	10.4	79	5.4	130	6.8
No opinion	0	0.0	2	0.5	10	0.7	12	0.6
Total	111	100.0	351	100.0	1443	100.0	1904	100.0

Table U40: IT Applications Used by NGO Size

	Yes		No → plan in next 3 years					
			Planned to launch		No plan to launch		Don't Know	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Financial management								
Small	58	52.7	2	4.6	25	47.9	25	47.5
Medium	214	61.0	19	13.6	42	30.5	76	55.9
Large	1059	73.4	135	35.2	27	7.1	221	57.7
Sub-total	1331	69.9	156	27.2	94	16.5	322	56.3
Human resource								
Small	27	24.4	7	8.6	33	38.9	44	52.6
Medium	172	48.9	19	10.4	43	24.2	117	65.4
Large	896	62.1	206	37.7	34	6.3	306	56.0
Sub-total	1095	57.5	232	28.6	110	13.6	467	57.7
Intranet								
Small	50	44.9	4	7.1	21	34.2	36	58.7
Medium	256	72.9	18	18.7	22	22.7	56	58.6
Large	1230	85.3	35	16.6	33	15.4	145	68.0
Sub-total	1535	80.6	57	15.6	75	20.4	236	64.0
Client information system								
Small	21	19.3	12	13.8	36	39.9	41	46.3
Medium	113	32.2	40	16.7	54	22.7	144	60.5
Large	778	53.9	200	30.0	89	13.4	376	56.5
Sub-total	912	47.9	252	25.4	179	18.0	561	56.6
Membership information system								
Small	47	42.4	4	6.8	26	41.4	33	51.8
Medium	155	44.3	42	21.4	31	16.0	122	62.7
Large	891	61.7	140	25.4	93	16.8	319	57.8
Sub-total	1093	57.4	186	22.9	150	18.5	475	58.5
Activity registration system								
Small	51	46.1	2	4.0	26	44.4	31	51.6
Medium	175	50.0	39	22.0	55	31.2	82	46.8
Large	743	51.5	119	17.0	141	20.2	439	62.8
Sub-total	970	50.9	160	17.1	222	23.8	552	59.1
Knowledge management								
Small	12	11.1	5	4.7	48	48.7	46	46.6
Medium	75	21.3	23	8.4	76	27.4	177	64.2
Large	686	47.6	83	10.9	130	17.2	544	71.9
Sub-total	773	40.6	111	9.8	254	22.4	767	67.8
Donation								
Small	11	10.1	9	9.2	41	41.2	49	49.6
Medium	71	20.3	17	6.2	86	30.8	176	63.1
Large	568	39.4	60	6.9	138	15.8	676	77.3
Sub-total	650	34.2	86	6.9	265	21.2	902	71.9
Direct service provision								
Small	4	3.9	6	6.1	55	51.6	45	42.3
Medium	32	9.2	14	4.4	99	31.0	206	64.5
Large	301	20.8	46	4.0	304	26.6	792	69.4
Sub-total	337	17.7	66	4.2	458	29.2	1043	66.5
Indirect service provision								
Small	25	22.8	10	11.4	31	36.4	45	52.2
Medium	131	37.4	43	19.4	61	27.9	116	52.7
Large	735	51.0	79	11.2	161	22.8	467	66.0
Sub-total	892	46.8	131	13.0	254	25.1	627	61.9
Others								
Small	0	0.0	0	0.0	0	0.0	0	0.0
Medium	0	0.0	0	0.0	0	0.0	0	0.0
Large	0	0.0	0	0.0	0	0.0	0	0.0
Sub-total	0	0.0	0	0.0	0	0.0	0	0.0

Table U41: The Need in Partnership Among NGOs in IT Development by NGO Size

Need for partnership	Size							
	Small		Medium		Large		Total	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Yes*	67	60.2	199	56.9	1023	70.9	1289	67.7
Develop core administrative system for the welfare sector	59	89.1	147	73.9	755	73.9	962	74.7
Develop core CIS for the welfare sector	44	66.2	146	73.4	793	77.6	984	76.4
Develop knowledge exchange system for the welfare sector	35	51.8	138	69.0	745	72.8	917	71.1
Develop on-line donation system for the welfare sector	25	37.5	92	46.2	521	50.9	638	49.5
Develop e-service system	35	53.0	115	57.7	693	67.8	844	65.5
Others	0	0.0	0	0.0	0	0.0	0	0.0
No	10	9.3	40	11.5	119	8.3	170	8.9
Don't know	34	30.5	111	31.6	301	20.9	445	23.4

**can choose more than one option*

Table U42: Source of Capital Cost for IT Projects by NGO Size

	All of them		Most of them		Half & half		Less than half	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
LSG								
Small	13	20.7	15	22.4	18	27.4	19	29.5
Medium	40	23.2	38	21.9	27	15.5	68	39.3
Large	174	20.2	297	34.4	115	13.4	277	32.0
subtotal	228	20.7	350	31.8	160	14.5	364	33.0
BIP								
Small	0	0.0	3	33.3	3	34.1	3	32.6
Medium	0	0.0	5	18.5	7	25.3	16	56.2
Large	11	4.6	10	4.4	14	6.0	195	85.0
subtotal	11	4.0	18	6.8	23	8.8	213	80.4
SWDF								
Small	5	10.8	20	47.5	10	22.8	8	18.9
Medium	0	0.0	58	50.8	5	4.7	51	44.6
Large	19	4.7	59	14.4	48	11.7	284	69.3
subtotal	24	4.2	137	24.2	63	11.1	344	60.5
Lotteries fund								
Small	0	0.0	4	11.8	3	8.4	26	79.9
Medium	5	6.2	17	20.2	18	21.1	45	52.4
Large	25	4.4	86	15.5	75	13.4	371	66.6
subtotal	30	4.4	108	15.9	96	14.2	442	65.4
Donation								
Small	4	12.0	4	12.0	6	18.0	19	58.0
Medium	0	0.0	2	2.4	10	12.9	67	84.7
Large	11	3.3	21	6.5	42	12.8	251	77.4
subtotal	15	3.3	27	6.2	58	13.2	337	77.3
Charity fund								
Small	0	0.0	0	0.0	0	0.0	19	100.0
Medium	3	6.3	4	9.6	7	16.8	30	67.4
Large	9	3.8	7	3.2	17	7.4	198	85.5
subtotal	12	4.0	12	4.0	25	8.4	246	83.7
others								
Small	0	0.0	2	1.8	0	0.0	0	0.0
Medium	9	2.6	12	3.4	0	0.0	0	0.0
Large	13	3.7	12	3.4	2	0.6	5	1.4
subtotal	22	1.2	27	1.4	2	0.1	5	0.3
Don't know								

	n	*%*
Small	25	22.4
Medium	117	33.5
Large	430	29.8
subtotal	572	30.0

Table U43: Source of Recurrent Cost for IT Projects by NGO Size

	All of them		**Most of them**		**Half & half**		**Less than half**	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
LSG								
Small	36	51.0	15	20.9	6	9.3	13	18.9
Medium	89	47.6	65	34.5	18	9.4	16	8.6
Large	503	54.9	244	26.6	94	10.3	76	8.3
subtotal	628	53.5	324	27.5	118	10.1	105	8.9
Donation								
Small	2	6.2	0	0.0	6	18.6	23	75.2
Medium	5	7.7	6	9.3	7	11.2	44	71.9
Large	11	4.3	17	6.6	44	17.5	182	71.7
subtotal	18	5.1	22	6.4	57	16.4	250	72.0
Charity fund								
Small	0	0.0	5	20.3	2	7.4	19	72.2
Medium	3	5.4	11	16.6	12	18.8	38	59.3
Large	7	2.4	12	4.2	58	21.0	200	72.3
subtotal	10	2.8	28	7.5	72	19.7	257	70.1
others								
Small	0	0.0	0	0.0	0	0.0	0	0.0
Medium	0	0.0	0	0.0	0	0.0	0	0.0
Large	0	0.0	0	0.0	2	100.0	0	0.0
subtotal	0	0.0	0	0.0	2	100.0	0	0.0
Don't know								

	n	*%*
Small	27	24.2
Medium	126	36.1
Large	458	31.7
subtotal	611	32.1

Table U44: Success Factors in Implementation of IT Projects by NGO Size

	Very important		Fairly important		Fairly unimportant		Very unimportant		no opinion	
*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*		
Project meets the administrative and management needs of the agency										
Small	40	36.5	63	56.6	2	1.7	0	0.0	6	5.2
Medium	145	41.5	199	56.7	1	0.3	0	0.0	5	1.5
Large	767	53.2	652	45.2	22	1.5	0	0.0	2	0.1
subtotal	953	50.0	914	48.0	25	1.3	0	0.0	13	0.7
Project meets the needs of the service users and members										
Small	42	38.2	60	54.4	2	1.7	2	2.2	4	3.5
Medium	154	43.9	190	54.2	0	0.0	0	0.0	7	2.0
Large	744	51.6	622	43.1	62	4.3	11	0.8	3	0.2
subtotal	941	49.4	872	45.8	64	3.3	14	0.7	14	0.7
5upport from experienced professionals										
Small	32	28.9	67	60.7	6	5.2	0	0.0	6	5.2
Medium	117	33.3	213	60.6	11	3.0	2	0.5	9	2.5
Large	616	42.7	757	52.5	56	3.9	6	0.4	8	0.6
subtotal	765	40.2	1037	54.4	72	3.8	8	0.4	22	1.2
Acceptability of the staff										
Small	35	31.4	68	60.9	3	2.4	2	1.7	4	3.5
Medium	133	38.0	208	59.5	4	1.1	0	0.0	5	1.5
Large	641	44.4	761	52.7	36	2.5	3	0.2	2	0.1
subtotal	809	42.5	1037	54.4	43	2.3	5	0.3	11	0.6
Staff involvement										
Small	48	43.0	56	50.1	0	0.0	2	1.7	6	5.2
Medium	136	38.7	201	57.3	6	1.7	0	0.0	8	2.3
Large	700	48.5	704	48.8	32	2.3	3	0.2	3	0.2
subtotal	883	46.4	960	50.4	38	2.0	5	0.3	17	0.9
User friendliness										
Small	49	43.9	56	50.9	2	1.7	0	0.0	4	3.5
Medium	149	42.6	187	53.4	7	2.0	0	0.0	7	2.0
Large	834	57.8	549	38.1	43	3.0	16	1.1	2	0.1
subtotal	1032	54.2	793	41.6	52	2.7	16	0.8	12	0.6
Training provided to users										
Small	41	36.8	56	50.4	8	7.6	0	0.0	6	5.2
Medium	130	37.0	203	57.8	13	3.6	0	0.0	5	1.5
Large	609	42.2	764	53.0	60	4.2	5	0.4	3	0.2
subtotal	780	41.0	1023	53.7	82	4.3	5	0.3	14	0.7
Adequate technical support before/after implementation of the project										
Small	42	37.9	61	55.2	2	1.7	0	0.0	6	5.2
Medium	164	46.7	177	50.5	4	1.3	0	0.0	5	1.5
Large	799	55.4	609	42.2	28	2.0	2	0.1	5	0.3
subtotal	1004	52.7	847	44.5	35	1.8	2	0.1	16	0.8
Adequate resource for maintenance after implementation of the project										
Small	49	44.1	56	50.7	0	0.0	0	0.0	6	5.2
Medium	157	44.8	184	52.4	3	0.8	2	0.6	5	1.5
Large	775	53.7	626	43.4	29	2.0	0	0.0	12	0.9
subtotal	981	51.5	866	45.5	32	1.7	2	0.1	23	1.2
Others										
Small	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Medium	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Large	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
subtotal	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

**can choose more than one option*

Table U45: NGO by size by priorities in expectations on IT strategy for the welfare sector

	1st		2nd		3rd		4th		5th	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Infrastructure										
Provide sufficient hardware/ software for staff needing to use computer										
Small	20	62.5	7	21.9	2	6.3	1	3.1	2	6.3
Medium	47	49.0	29	30.2	7	7.3	3	3.1	10	10.4
Large	275	73.1	36	9.6	35	9.3	15	4.0	15	4.0
subtotal	342	67.9	72	14.3	44	8.7	19	3.8	27	5.4
Installation of intranet information system										
Small	3	15.0	3	15.0	5	25.0	6	25.0	3	15.0
Medium	28	36.8	24	31.6	9	11.8	8	10.5	7	902
Large	20	808	122	53.7	21	9.3	44	19.4	20	8.8
subtotal	51	15.8	149	46.1	35	10.8	58	18.0	30	9.3
Application systems										
HRMS										
Small	0	0.0	2	12.5	2	12.5	6	37.5	6	37.5
Medium	2	3.2	5	7.9	13	20.6	36	57.1	7	11.1
Large	14	7.0	31	15.5	59	29.5	48	24.0	48	24.0
subtotal	*16*	5.7	38	13.6	74	26.5	90	32.3	61	21.9
FMS										
Small	2	9.5	4	19.0	8	38.1	3	14.3	4	19.0
Medium	9	11.7	14	18.2	34	44.2	10	13.0	10	13.0
Large	24	10.0	45	18.8	53	22.2	63	26.4	54	22.6
subtotal	*35*	10.4	63	18.7	95	28.2	76	22.6	68	20.2
Service management										
Small	2	22.2	1	11.1	1	11.1	2	22.2	3	33.3
Medium	7	22.6	9	29.0	3	9.7	5	16.1	7	22.6
Large	12	7.6	24	15.3	38	22.9	41	26.1	44	28.0
subtotal	*21*	10.7	34	17.3	40	20.3	48	24.4	54	27.4
Agency-base CIS										
Small	0	0.0	0	0.0	6	60.0	3	30.0	1	10.0
Medium	0	0.0	5	20.0	7	29.2	4	16.7	8	33.3
Large	13	10.2	23	18.1	27	21.3	29	22.8	35	27.6
subtotal	*13*	8.1	28	17.4	40	24.8	36	22.4	44	27.3
human-ware										
Provide training for general computer software application										
Small	5	20.8	8	33.3	4	16.7	5	20.8	2	8.3
Medium	5	9.6	8	15.4	17	32.7	14	26.9	8	15.4
Large	26	9.4	65	23.5	91	32.9	40	14.4	55	19.9
subtotal	*36*	10.2	81	22.9	112	31.7	59	16.7	65	18.4
Provide training for specific applications (e.g. HRMS, FMS)										
Small	1	4.5	5	22.7	3	13.6	5	22.7	8	36.4
Medium	6	9.25	5	7.7	6	9.2	10	15.4	38	58.5
Large	17	7.6	38	17.0	50	22.3	67	29.9	52	23.2
subtotal	*24*	7.7	48	15.4	59	19.0	82	26.4	98	31.5
others										
Set up guidelines for IT usage										
Small	0	0.0	3	42.9	1	14.3	0	0.0	3	42.9
Medium	1	4.2	2	8.3	4	16.7	13	54.2	4	16.7
Large	10	9.8	11	10.8	14	13.7	34	33.3	102	100
subtotal	*11*	8.3	16	12.0	19	14.3	47	35.3	40	30.1
Keep up with IT development in the society										
Small	2	33.3	0	0.0	1	16.7	2	33.3	1	16.7
Medium	1	5.6	4	22.2	5	27.8	2	11.1	6	33.3
Large	12	8.7	22	15.9	27	19.6	28	20.3	49	35.5
subtotal	*15*	9.3	26	16.0	33	19.8	32	19.8	56	34.6
others										
Small	0	0.0.	0	0.0.	0	0.0.	0	0.0.	0	0.0.
Medium	1	100.0	0	0.0.	0	0.0.	0	0.0.	0	0.0.
Large	0	0.0.	0	0.0.	1	100.0	0	0.0.	0	0.0.
subtotal	1	50.0	0	0.0.	1	50.0	0	0.0	0	0.0

Table U46: NGO by size by considerations in development of cross agency CIS

	Very important		Fairly important		Fairly unimportant		Very unimportant		No opinion	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
To system is better able to help the service user directly										
Small	7	20.0	23	65.7	3	8.6	0	0.0	2	5.7
Medium	38	35.5	67	62.6	1	0.9	0	0.0	1	0.9
Large	195	46.9	207	49.8	12	2.9	2	0.5	0	0.0
subtotal	240	43.0	297	53.2	16	2.9	2	0.4	3	0.5
The system is able to coordinate the various need of the service user, and enables more effective resource allocation										
Small	7	20.0	25	71.4	1	2.9	0	0.0	2	5.7
Medium	37	34.6	67	62.6	2	1.9	0	0.0	1	0.9
Large	201	48.3	196	47.1	16	3.8	3	0.7	0	0.0
subtotal	*245*	43.9	288	51.6	19	3.4	3	0.5	3	0.5
The system can reduce the risk of abuse of the service										
Small	3	8.6	25	71.4	5	14.3	0	0.0	2	5.7
Medium	26	24.3	73	68.2	6	5.6	0	0.0	2	1.9
Large	119	28.6	202	48.6	88	21.2	7	1.7	0	0.0
subtotal	*148*	26.5	300	53.8	99	17.7	7	1.3	4	0.7
Guidelines to access to information must be spelled out clearly										
Small	17	48.6	15	42.9	1	2.9	0	0.0	2	5.7
Medium	66	61.7	38	35.5	2	1.9	0	0.0	1	0.9
Large	252	60.6	154	37.0	6	1.4	4	1.0	0	0.0
subtotal	*335*	60.0	207	37.1	9	1.6	4	0.7	3	0.5
Must obtain the consent of the service users										
Small	19	54.3	13	37.1	1	2.9	0	0.0	2	5.7
Medium	43	40.2	57	53.3	6	5.6	0	0.0	1	0.9
Large	229	55.0	175	42.1	11	2.6	1	0.2	0	0.0
subtotal	*291*	52.2	245	43.9	18	3.2	1	0.2	3	0.5
Must inform the service users on who and what information would be shared										
Small	17	48.6	18	45.7	0	0.0	0	0.0	2	5.7
Medium	37	34.6	66	61.7	3	2.8	0	0.0	1	0.9
Large	203	48.8	202	48.6	9	2.2	2	0.5	0	0.0
subtotal	*257*	46.1	284	50.9	12	2.2	2	0.4	3	0.5
others										
Small	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Medium	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Large	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
subtotal	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table U47: NGO by size by view on launching CIS in next 3 years

View on launching CIS in coming 3 years	Size							
	Small		Medium		Large		Total	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Strongly agree	7	20.0	23	21.5	65	15.6	95	17.0
Somewhat agree	13	37.1	32	29.9	162	38.9	207	37.1
Somewhat disagree*	13	37.1	45	42.1	174	41.8	232	41.6
Cost incurred	9	69.2	12	26.7	71	40.8	92	39.7
Manpower involved	11	84.6	13	28.9	83	47.7	107	46.1
Management of confidential data	7	53.8	39	86.7	100	57.5	146	62.9
Not necessary	4	30.8	6	13.3	41	23.6	51	22.0
other	0	0.0	0	0.0	22	12.6	22	9.5
strongly disagree*	1	2.9	3	2.8	10	2.4	14	2.5
Cost incurred	0	0.0	2	66.7	3	30.0	5	35.7
Manpower involved	0	0.0	3	100.0	2	20.0	5	35.7
Management of confidential data	1	100.0	2	66.7	7	70.0	10	71.4
Not necessary	0	0.0	2	66.7	4	40.0	6	42.9
other	0	0.0	0	0.0	0	.0	0	0.0
no opinion	1	2.9	4	3.7	5	1.2	10	1.8

**can choose more than one option*

Table U48: NGO by size by knowledge on objectives of IT strategy

	Know very well		**Know fairly well**		**Do not know very well**		**do not know at all**		**Not aware of this strategy**	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Improvement in infrastructure to enhance work efficiency and internal administration										
Small	1	2.9	10	28.6	21	60.0	3	8.8	4	11.4
Medium	4	3.7	51	47.7	32	29.9	20	18.7	25	23.4
Large	12	2.9	169	40.6	175	42.1	60	14.4	82	19.7
subtotal	127	22.8	293	52.5	27	4.8	0	0.0	111	19.9
Encourage continuous and expanding use of email and internet websites for communication										
Small	2	5.7	14	40.0	17	48.6	2	5.7	3	8.6
Medium	3	2.8	56	52.3	31	29.0	17	15.9	107	100
Large	12	2.9	210	50.5	138	33.2	56	13.5	80	19.2
subtotal	*17*	3.0	280	50.2	186	33.3	75	13.4	107	19.2
Underpin the Gov't's Digital 21 Strategy, support for IT initiatives on bridging the digital divide of elders, disabled persons and disadvantaged individuals										
Small	0	0.0	9	25.7	21	60..0	5	14.3	5	14.3
Medium	0	0.0	46	43.0	42	39.3	19	17.8	26	24.3
Large	3	0.7	76	18.3	244	58.7	93	22.4	112	26.9
subtotal	*3*	0.5	131	23.5	307	55.0	117	21.0	143	25.6
More emphasis on developing IT applications to enable service delivery										
Small	0	0.0	12	34.3	21	60.0	2	5.7	4	11.4
Medium	2	1.9	49	45.8	37	34.6	19	17.8	25	23.4
Large	8	1.9	147	35.3	192	46.2	69	16.6	94	22.6
subtotal	*10*	1.8	208	37.3	250	44.8	90	16.1	123	22.0
Development of shared-use and common applications										
Small	1	2.9	6	17.1	16	45.7	12	34.3	6	17.1
Medium	0	0.0	15	14.0	65	60.7	27	25.2	50	46.7
Large	4	1.0	51	12.3	246	59.1	115	27.6	112	26.9
subtotal	*5*	0.9	72	12.9	327	58.6	154	27.6	168	30.1
Laying down policy statements to provide vision, mission and value on human-ware development										
Small	1	2.9	5	14.3	20	57.1	9	25.7	4	11.4
Medium	0	0.0	33	30.8	46	43.0	28	28.2	30	28.0
Large	4	1.0	98	23.6	217	52.2	97	23.3	106	25.5
subtotal	*5*	0.9	138	24.4	283	50.7	134	24.0	140	25.1
Make good use of the service provided by the ITRC										
Small	0	0.0	6	17.1	19	54.3	10	28.6	6	17.1
Medium	2	1.9	41	38.3	40	37.4	24	22.4	29	27.1
Large	3	0.7	104	25.0	204	49.0	105	25.2	122	29.3
subtotal	*5*	0.9	151	27.1	263	47.1	139	24.9	157	28.1
Develop IT strategy suitable to their agencies and at their own pace										
Small	0	0.0	4	11.4	25	71.4	6	17.1	5	14.3
Medium	2	1.9	39	36.4	45	42.1	21	19.6	30	28.0
Large	3	0.7	103	24.8	225	54.1	85	20.4	102	24.5
subtotal	*5*	0.9	146	26.2	295	52.9	112	20.1	137	24.6

Table U49: NGO by size by helpfulness of the IT Strategy objectives

	Very helpful		Fairly helpful		Not quite helpful		Not helpful at all		Not aware of this strategy	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Improvement in infrastructure to enhance work efficiency and internal administration										
Small	6	17.1	23	65.7	2	5.7	0	0.0	4	11.4
Medium	41	38.3	36	33.6	5	4.7	0	0.0	25	23.4
Large	80	19.2	234	56.3	20	4.8	0	0.0	82	19.7
subtotal	127	22.8	293	52.5	27	4.8	0	0.0	111	19.9
Encourage continuous and expanding use of email and internet websites for communication										
Small	3	8.6	24	68.6	5	14.3	0	0.0	3	8.6
Medium	14	13.1	60	56.1	9	8.4	0	0.0	107	100
Large	68	16.3	238	57.2	30	7.2	0	0.0	80	19.2
subtotal	*85*	15.2	322	57.7	44	7.9	0	0.0	107	19.2
Underpin the Gov't's Digital 21 Strategy, support for IT initiatives on bridging the digital divide of elders, disabled persons and disadvantaged individuals										
Small	3	8.6	19	54.3	8	22.9	0	0.0	5	14.3
Medium	6	5.6	35	32.7	39	36.4	1	0.9	26	24.3
Large	26	6.3	192	46.2	80	19.2	6	1.4	112	26.9
subtotal	*36*	6.3	246	44.1	127	22.8	7	1.3	143	25.6
More emphasis on developing IT applications to enable service delivery										
Small	5	14.3	21	60.0	5	14.3	0	0.0	4	11.4
Medium	14	13.1	60	56.1	8	7.5	0	0.0	25	23.4
Large	56	13.5	245	58.9	19	4.6	2	0.5	94	22.6
subtotal	*75*	13.4	328	58.4	32	5.7	2	0.4	123	22.0
Development of shared-use and common applications										
Small	5	14.3	17	48.6	7	20.0	0	0.0	6	17.1
Medium	7	6.5	34	31.8	13	12.1	3	2.8	50	46.7
Large	25	6.0	174	41.8	102	24.5	3	0.7	112	26.9
subtotal	*37*	6.6	225	40.3	122	21.9	6	1.1	168	30.1
Laying down policy statements to provide vision, mission and value on human-ware development										
Small	5	14.3	20	57.1	5	14.3	2	2.9	4	11.4
Medium	6	5.6	55	51.4	14	13.1	2	1.9	30	28.0
Large	41	9.9	230	55.3	38	8.7	3	0.7	106	25.5
subtotal	*52*	9.3	305	54.7	55	9.9	6	1.1	140	25.1
Make good use of the service provided by the ITRC										
Small	2	5.7	17	48.6	10	28.6	0	0.0	6	17.1
Medium	7	6.5	56	52.3	13	12.1	2	1.9	29	27.1
Large	16	3.8	184	44.2	89	21.4	5	1.2	122	29.3
subtotal	*25*	4.5	257	46.1	112	20.1	7	1.3	157	28.1
Develop IT strategy suitable to their agencies and at their own pace										
Small	5	14.3	20	57.1	5	14.3	0	0.0	5	14.3
Medium	30	28.0	38	35.5	9	8.4	0	0.0	30	28.0
Large	78	18.8	208	50.0	26	6.3	2	0.5	102	24.5
subtotal	*113*	20.3	266	47.7	40	7.2	2	0.4	137	24.6

Table U50: NGO by size by importance of IT strategy

	Very important		Fairly important		Fairly unimportant		Very unimportant		No opinion	
*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Provide a direction in IT development for the welfare sector										
Small	8	22.9	22	62.9	4	11.4	0	0.0	1	2.9
Medium	18	16.8	79	73.8	8	7.5	0	0.0	2	1.9
Large	96	23.1	283	68.0	33	7.9	2	0.5	2	0.5
subtotal	122	21.9	384	68.8	45	8.1	2	0.4	5	0.9
Provide guidelines for prioritization of resources										
Small	13	37.1	17	48.6	4	11.4	0	0.0	1	2.9
Medium	29	27.1	72	67.3	4	3.7	0	0.0	2	1.9
Large	113	27.2	282	67.8	18	4.3	1	0.2	2	0.5.
subtotal	*155*	27.8	371	66.5	26	4.7	1	0.2	5	0.9
Help to reduce digital divide										
Small	5	14.3	22	62.9	7	20.0	0	0.0	1	2.9
Medium	15	14.0	81	75.7	9	8.4	0	0.0	2	1.9
Large	49	11.8	267	64.2	94	22.6	3	0.7	3	0.7
subtotal	*69*	12.4	370	66.3	110	19.7	3	0.5	6	1.1
Help to improve service effectiveness										
Small	12	34.3	17	48.6	5	14.3	0	0.0	1	2.9
Medium	26	24.3	73	68.2	6	5.6	0	0.0	2	1.9
Large	90	21.6	292	70.2	30	7.2	1	0.2	3	0.7
subtotal	*128*	22.9	382	68.5	41	7.3	1	0.2	6	1.1
Help to expand e-service										
Small	11	31.4	17	48.6	6	17.1	0	0.0	1	2.9
Medium	16	15.0	76	71.0	12	11.2	1	0.9	2	1.9
Large	69	16.6	260	62.5	82	18.7	3	0.7	2	0.5
subtotal	*96*	17.2	353	63.3	100	17.9	4	0.7	5	0.9
Help to share client information across agencies										
Small	7	20.0	18	51.4	9	25.7	0	0.0	1	2.9
Medium	14	13.1	74	69.2	14	13.1	3	2.8	2	1.9
Large	53	12.7	250	60.1	103	24.8	7	1.7	3	0.7
subtotal	*74*	13.3	342	61.3	128	22.6	10	1.8	6	1.1
others										
Small	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Medium	1	0.9	0	0.0	0	0.0	0	0.0	0	0.0
Large	0	0.0	2	0.5	0	0.0	0	0.0	0	0.0
subtotal	1	0.2	2	0.4	0	0.0	0	0.0	0	0.0

**can choose more than one option*

Table U51: NGO by size by views on role of different stakeholders

	Software vendor		Hardware vendor		Consultancy company		SWD		Agency management		Agency staff		Service users		ITRC				OGCIO				others	
																	Don't know				Don't know			
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Provide a direction in IT development for the welfare sector																								
S	23	65.7	20	57.1	15	42.9	25	71.4	28	80.0	22	62.9	13	37.1	5	14.3	23	65.7	5	14.3	28	80.0	0	0.0
M	74	69.2	68	63.6	69	64.5	89	83.2	97	90.7	83	77.6	65	60.7	49	45.8	43	40.2	38	35.5	54	50.5	0	0.0
L	225	54.1	196	47.1	248	59.6	349	83.9	376	90.4	256	61.5	161	38.7	156	37.5	167	40.1	96	23.1	241	57.9	0	0.0
ST	322	57.7	284	50.9	332	59.5	463	83.0	501	89.8	361	64.7	239	42.8	210	37.6	233	41.8	139	24.9	323	57.9	0	0.0
Laying down relevant standards and guidelines																								
S	17	48.6	14	40.0	20	57.1	23	65.7	26	74.3	21	60.0	13	37.1	8	22.9	22	62.9	5	14.3	27	77.1	0	0.0
M	34	31.8	30	28.0	49	45.8	86	80.4	97	90.7	80	74.8	32	29.9	52	48.6	42	39.3	16	15.0	54	50.5	0	0.0
L	149	35.8	129	31.0	222	53.4	302	72.6	377	90.6	252	60.6	147	35.3	179	43.0	162	38.9	144	34.6	237	57.0	0	0.0
ST	200	35.8	173	31.0	291	52.2	411	73.7	500	89.6	353	63.3	192	34.4	239	42.8	226	40.5	165	29.6	318	57.0	0	0.0
Provide subsidy and resources																								
S	19	54.3	16	45.7	12	34.3	24	68.6	20	57.1	16	45.7	10	28.6	7	20.0	21	60.0	5	14.3	27	77.1	0	0.0
M	41	38.3	38	35.5	36	33.6	94	87.9	96	89.7	31	29.0	24	22.4	50	46.7	42	39.3	41	38.3	54	50.5	0	0.0
L	171	41.1	169	40.6	156	37.5	369	88.7	349	83.9	138	33.2	85	20.4	138	33.2	167	40.1	121	29.1	239	57.5	0	0.0
ST	231	41.4	223	40.0	204	36.6	487	87.3	465	83.3	185	33.2	119	21.3	195	34.9	230	41.2	167	29.9	320	57.3	0	0.0
Provision / coordination of technical support																								
S	28	80.0	24	68.6	25	71.4	19	54.3	17	48.6	16	45.7	9	25.7	12	34.3	20	57.1	5	14.3	27	77.1	0	0.0
M	64	59.8	63	58.9	89	83.2	47	43.9	88	82.2	71	66.4	27	25.2	31	29.0	40	37.4	17	15.9	53	49.5	0	0.0
L	321	77.2	304	73.1	317	76.2	256	61.5	305	73.3	187	45.0	89	21.4	202	48.6	158	38.0	129	31.0	236	56.7	0	0.0
ST	413	74.0	391	70.1	431	77.2	322	57.7	410	73.5	274	49.1	125	22.4	245	43.9	218	39.1	151	27.1	316	56.6	0	0.0
Provision / coordination of sharing platform in the welfare sector																								
S	18	51.4	12	34.3	21	60.0	26	74.3	23	65.7	17	48.6	12	34.3	13	37.1	20	57.1	5	14.3	27	77.1	0	0.0
M	50	46.7	47	43.9	56	52.3	91	85.0	92	86.0	73	68.2	34	31.8	54	50.5	41	38.3	16	15.0	53	49.5	0	0.0
L	206	49.5	177	42.5	246	59.1	362	87.0	310	74.5	181	43.5	113	27.2	208	50.0	159	38.2	102	24.5	236	56.7	0	0.0
ST	274	49.1	236	42.3	323	57.9	479	85.8	425	76.2	271	48.6	159	28.5	275	49.3	220	39.4	123	22.0	316	56.6	0	0.0
Provide relevant training																								
S	27	77.1	16	45.7	17	48.6	21	60.0	26	74.3	18	51.4	12	34.3	14	40.0	19	54.3	6	17.1	26	74.3	0	0.0
M	59	55.1	49	45.8	78	72.9	80	74.8	100	93.5	78	72.9	34	31.8	55	51.4	40	37.4	18	16.8	54	50.5	0	0.0
L	291	70.0	231	55.5	236	56.7	280	67.3	348	83.7	271	65.1	143	34.4	204	49.0	160	38.5	126	30.3	235	56.5	0	0.0
ST	377	67.6	296	53.0	331	59.3	381	68.3	474	84.9	367	65.8	189	33.9	273	48.9	219	39.2	150	26.9	315	56.5	0	0.0

Narrowing digital divide

	Software vendor		Hardware vendor		Consultancy company		SWD		Agency management		Agency staff		Service users		ITRC				OGCIO				others	
																	Don't know				Don't know			
S	17	48.6	14	40.0	17	48.6	20	57.1	22	62.9	17	48.6	14	40.0	12	34.3	21	60.0	5	14.3	27	77.1	0	0.0
M	76	71.0	72	67.3	71	66.4	85	79.4	90	84.1	78	72.9	69	64.5	57	53.3	41	38.3	43	40.2	55	51.4	0	0.0
L	233	56.0	216	51.9	223	53.6	323	77.6	323	77.6	232	55.8	223	53.6	185	44.5	165	39.7	142	34.1	239	57.5	0	0.0
ST	326	58.4	302	54.1	311	55.7	428	76.7	435	78.0	327	58.6	306	54.8	254	45.5	227	40.7	190	34.1	321	57.5	0	0.0
Improve service effectiveness																								
S	18	51.4	17	48.6	19	54.3	26	74.3	28	80.0	24	68.6	18	51.4	8	22.9	21	60.0	4	11.4	27	77.1	0	0.0
M	46	43.0	40	37.4	47	43.9	84	78.5	94	87.9	93	86.9	70	65.4	27	25.2	41	38.3	18	16.8	54	50.5	0	0.0
L	200	48.1	182	43.8	222	53.4	344	82.7	376	90.4	345	82.9	228	54.8	154	37.0	165	39.7	92	22.1	235	56.5	0	0.0
ST	264	47.3	239	42.8	288	51.6	454	81.4	498	89.2	462	82.8	316	56.6	189	33.9	227	40.7	114	20.4	316	56.6	0	0.0

**can choose more than one option*

Appendix V

Interview guides for in-depth interviews

社會服務機構管理委員會委員
深入面談大綱

1. 請介紹貴機構過往在資訊科技方面的情況和現時的發展方向。
2. 請問貴機構曾經推行過那些資訊科技項目及計劃。
3. 項目及計劃如何籌措經費?
4. 項目及計劃達成了甚麼目標？
5. 您覺得該等項目及計劃的主要成功因素是甚麼？您認為有那些是特別成功的手法？
6. 貴機構在推行該等項目及計劃時，最主要面對的障礙是甚麼？
7. 您對貴機構在資訊科技發展的前景有甚麼看法？
8. 您認為社會署以及其他持分者在機構資訊科技發展的支援如何？您認為他們應該擔當甚麼角色?
9. 對於設立一個和社會署接軌的電子資訊平台，包括共用某些和服務對象有關的資料，您有看法如何?
10. 您對於現時的社會服務界資訊科技策略有甚麼看法? 對資訊科技策略的未來有甚麼展望? 面對資訊科技的迅速發展 (例如雲端運算(cloud computing))，社會服務界又應該如何回應呢？
11. 您對於制定/檢討社會服務界資訊科技策略的方法，有甚麼意見？

社會服務界資訊科技策略檢討
社會服務機構高層行政人員/中層管理人員
深入面談大綱

1. 請介紹貴機構在資訊科技的主要計劃及發展.
2. 請介紹您曾經推行及/或現正計劃推行的主要資訊科技項目及計劃.
3. 請問貴機構曾否申請業務改進計劃(BIP)/社會福利發展基金(SWDF)等資助來推行資訊科技項目？若有，您的經驗如何？若沒有，原因是甚麼？
4. 在推行這些項目時，基本的架構或過程是甚麼？
5. 這些項目的基本概念是如何發展出來的呢？項目如何籌劃，以甚麼途徑籌措資金，以及如何推行呢？
6. 您如何準備不同階層的同事去參與及善用這些計劃/項目/新功能？
7. 您覺得該等項目及計劃的主要成功因素是甚麼？您認為有那些是特別成功的手法?
8. 在推行該等項目及計劃時，要面對的主要障礙是甚麼？
9. 您認為貴機構在資訊科技方面，目前及未來有甚麼需要？
10. 您認為社會署以及其他持分者在機構資訊科技發展的支援如何? 您認為他們應該擔當甚麼角色?
11. 對於設立一個和社會署接軌的電子資訊平台，包括共用某些和服務對象有關的資料，您有看法如何?
12. 您對於現時的社會服務界資訊科技策略有甚麼看法? 對該策略的未來有甚麼展望? 面對資訊科技的迅速發展 (例如雲端運算(cloud computing))，社會服務界又應該如何回應呢？
13. 您對於制定/檢討社會服務界資訊科技策略的方法，有甚麼意見?

Appendix VI

Interview guides for focus group interviews

社會服務機構高層行政人員/中層管理人員
聚焦小組討論大綱

1. 您認為資訊科技發展對社會服務界的主要貢獻是甚麼？
2. 以您現時服務的小/中/大型機構而言，目前及未來在資訊科技方面有甚麼需要？
3. 在籌劃及推行資訊科技發展計劃時，您認為主要成功因素是甚麼？
4. 您對於以往/現行在社會服務界的資訊科技策略有甚麼看法？
5. 您對於社會服務界資訊科技策略有甚麼期望？面對資訊科技的迅速發展(例如雲端運算(cloud computing))，社會服務界又應該如何回應呢？
6. 您認為社會署以及社會服務界在制定及檢討資訊科技策略方面，應該擔當甚麼角色?
7. 對於設立一個和社會署接軌的電子資訊平台，包括共用某些和服務對象有關的資料，您有看法如何?
8. 請問貴機構曾否申請業務改進計劃(BIP)/社會福利發展基金(SWDF)等資助來推行資訊科技項目？若有，您的經驗如何？若沒有，原因是甚麼？

社會服務界資訊科技策略檢討
社會服務機構前線人員
聚焦小組討論大綱

1. 在您的行政及服務範疇，有那些工作是會應用到資訊科技的呢？這些科技產品或程式對您有幫助嗎？
2. 您認為資訊科技對前線服務主要的貢獻是甚麼？
3. 您認將資訊科技應用在行政和服務方面，主要的成功因素及面對的障礙是甚麼？
4. 您認為服務對象是否準備就緒，可以更進一步運用資訊科技去接受服務？在這方面還有甚麼改善的空間？
5. 對於設立一個和社會署接軌的電子資訊平台，包括共用某些和服務對象有關的資料，您有看法如何?
6. 您對於社會服務界資訊科技策略有甚麼期望？

社會服務界資訊科技策略檢討

社會服務機構服務對象

聚焦小組討論大綱

接觸機會

1. 服務機構如何協助您接觸及/或使用資訊科技並獲得有關的知識？
2. 您覺得這些支援是否有用？能否令您覺得更方便？是否容易使用？
3. 服務機構有甚麼改善空間，協助您使用資訊科技及獲得有關知識？

提供服務

4. 您在資訊科技應用方面接受了甚麼服務 (例如：建立網址，輔助器材等)
5. 您覺得這些支援是否有用？能否令您覺得更方便？是否容易使用？
6. 這些服務有甚麼改善的空間？
7. 您希望透過服務機構的資訊科技，得到甚麼服務？

以服務對象為本的資訊平台

8. 若設立一個和其他公共機構如社會署等接軌，並以服務對象為本的電子資訊平台，您有何看法?

社會服務界資訊科技策略檢討
社區持份者
聚焦小組討論大綱

1. 請介紹貴公司曾經和社會服務機構合作的資訊科技項目。
2. 你覺得社會服務機構和其他界別在資訊科技的需要、期望及合作關係上有何異同？社會服務機構有何特點？
3. 你認為和社會服務機構的合作上，有甚麼需要加強的地方？
4. 你認為社會福利界資訊科技的發展應考慮哪些因素？

Appendix VII

Questionnaire for agency management

「社會福利界資訊科技策略」檢討
機構管理層問卷調查

這份問卷主要希望了解貴機構在資訊科技的發展、計劃和展望，以及在推行期間的經驗。*問卷請由機構主管或及其指派的合適職員作答。*參與純屬自願性質，所收集的資料只供研究用途，個人資料將絕對保密。請安心作答，多謝你的參與。

答題方法：請在你所選的答案方格內加「✓」。

第一部份：基本資料

1 機構名稱：_____ 1.1 有沒有機構網址： (1) □ 有 (2) □ 沒有

2 機構服務範疇及單位數目：

	服務範疇	單位數目 (包括資助及非資助單位)					
		0 (1)	1 (2)	2 (3)	3-7 (4)	8-20 (5)	≥21 (6)
2.1	家庭及兒童福利	□	□	□	□	□	□
2.2	康復	□	□	□	□	□	□
2.3	安老	□	□	□	□	□	□
2.4	青少年	□	□	□	□	□	□
2.5	曾違法者及刑釋人士	□	□	□	□	□	□
2.6	社區發展	□	□	□	□	□	□

3 機構聘用的全職註冊社工人數：(1) □ ≤50 (2) □ 51-100 (3) □ 101-200 (4) □ 201-300 (5) □ 301-400 (6) □ 401-500 (7) □ 501-1000 (8) □ ≥1001

4 機構聘用的其他全職職員人數：(1) □ ≤50 (2) □ 51-100 (3) □ 101-200 (4) □ 201-300 (5) □ 301-400 (6) □ 401-500 (7) □ 501-1000 (8) □ ≥1001

第二部份：資訊科技政策/指引

5 機構在下列資訊科技範疇，有否既定政策或指引的**文件**？

		有 (1)	沒有，但 有計劃 撰寫 (2)	沒有，亦 未有計劃 撰寫 (3)
5.1	資訊科技的發展方向	□	□	□

5.2	基礎設備 (包括硬件及軟件) 的標準	□	□	□
5.3	機構/單位網頁的易讀性(web accessibility)	□	□	□
5.4	保護資訊科技系統的標準 (如防止黑客入侵的裝置)	□	□	□
5.5	保護資料/數據完整 (data integrity) 裝置的標準	□	□	□
5.6	處理資訊保安事故 (如資料意外遺失及外洩) 的措施	□	□	□
5.7	處理資訊保安事故的責任架構	□	□	□
5.8	其他，請註明：_____	□	□	□

6 **主要**負責為機構確立有關資訊科技發展策略/目標/計劃的單位/人士為：

(1) □ 管理委員會/小組委員會 → 成員當中是否有具備資訊科技學歷的人士：(1) □ 有 (2) □ 沒有

(2) □ 機構主管 → 是否具備資訊科技學歷：(1) □ 是 (2) □ 不是

(3) □ 機構資訊科技專業人員

(4) □ 其他，請註明：_____ → 是否具備資訊科技學歷：(1) □ 是 (2) □ 不是

(5) □ 不適用

7 您認為機構在落實資訊科技政策或指引時，下列目標的重要性如何？

		十分重要 (1)	頗為重要 (2)	頗不重要 (3)	極不重要 (4)
7.1	加強服務的效益	□	□	□	□
7.2	拓展網上服務	□	□	□	□
7.3	加強行政及管理工作的效益	□	□	□	□
7.4	加強和持分者的接觸 (包括服務對象/使用者/會員、地區合作伙伴、捐款人)	□	□	□	□
7.5	加強內部資訊交流	□	□	□	□
7.6	加強內部的知識管理/經驗交流	□	□	□	□
7.7	提升員工對應用資訊科技的認知和接受	□	□	□	□
7.8	其他，請註明：_____	□	□	□	□

第三部份：資訊科技應用系統使用範疇

8		機構**現時**有沒有採用以下的資訊科技應用系統？		機構會否在**未來三年**，**推出或更新**下列資訊科技項目？		
		有 (1)	沒有 (2)	有計劃推出或更新 (1)	沒有計劃推出或更新 (2)	不知道 (3)
8.1	財政管理系統(包括發收據應用系統/ Invoice System)	□	□	□	□	□
8.2	人力資源管理系統	□	□	□	□	□
8.3	內聯網網絡訊息系統 [e.g. Local Area	□	□	□	□	□

	Network (LAN), Wireless LAN System]					
8.4	服務對象(指接受輔導、個人成長、康復治療等介入服務的受助人)資料系統 [Client Information System (CIS)]	□	□	□	□	□
8.5	一般服務使用者/會員(指參與機構活動，如學習班、興趣小組，但沒有接受輔導、個人成長、康復治療等介入服務的人士)資料系統	□	□	□	□	□
8.6	活動報名系統	□	□	□	□	□
8.7	知識管理系統(例如讓員工交流工作經驗和心得的內聯網平台)	□	□	□	□	□
8.8	網上募捐系統	□	□	□	□	□
8.9	直接應用於服務對象(例如網上輔導、網上外展服務)的系統	□	□	□	□	□
8.10	間接應用於服務對象(例如義工服務、專供服務使用者瀏覽的網頁)的系統	□	□	□	□	□
8.11	其他，請註明：_____	□	□	□	□	□

9 您對機構在下列資訊科技範疇的滿意程度有多少？

		十分滿意 (1)	頗為滿意 (2)	頗為不滿 (3)	十分不滿 (4)	不適用 (0)
9.1	基礎建設 (如電腦數目、內聯網網絡訊息系統)	□	□	□	□	□
9.2	管理及行政應用程式	□	□	□	□	□
9.3	用於服務的應用程式	□	□	□	□	□

第四部份：資訊科技支援

10 在過往一年，機構負責**管理**和**支援**資訊科技工作的員工當中，有沒有已經具備**資訊科技學歷**的人士？

(1) □ 有 (2) □ 沒有 → 跳至第 12 題

11 他們擔當的崗位是：

(1) □ 資訊科技行政管理人員 → _____ 名

(2) □ 資訊科技技術支援人員 → _____ 名

(3) □ 其他，請註明職位：_____ → _____ 名

12 在過往一年，機構負責**管理**和**支援**資訊科技工作的員工當中 (包括專責及兼任的員工)，有沒有**非資訊科技學歷**的人士？

(1) □ 有 (2) □ 沒有 → 跳至第 14 題

13 整體而言，上述非資訊科技專業資格的員工，在執行和資訊科技有關的工作時，主要負責的是 (可選多於一項)：

(1) □ 基礎設施 (包括硬件及軟件) 的管理和支援

(2) □ 基礎設施 (包括硬件及軟件) 的維修和保養

(3) □ 應用於管理及行政方面的程式

(4) □ 應用於服務方面的程式

(5) □ 其他，請註明：_____

14 在過往一年，在處理和資訊科技有關的問題時，曾否需要機構以外的支援？ (1) □ 有 (2) □ 沒有 → 跳至第 16 題

15 在過往一年，機構曾否接觸下列機構/單位，以解決或商議和資訊科技有關的問題？

		每次都會 (1)	大多數會 (2)	有一半會 (3)	少部份會 (4)	從來不會 (5)	不知道這類供應商/此機構 (6)
15.1	硬件供應商	□	□	□	□	□	□
15.2	軟件供應商	□	□	□	□	□	□
15.3	資訊科技顧問公司 (如資訊科技方案 (IT solution) 供應商)	□	□	□	□	□	□
15.4	香港社會服務聯會資訊科技資源中心 (ITRC)	□	□	□	□	□	□
15.5	其他，請註明：_____	□	□	□	□	□	

16 您認為機構在下列資訊科技應用範疇是否得到足夠的支援？

		十分足夠 (1)	頗為足夠 (2)	頗為不足 (3)	十分不足 (4)	不適用 (0)
16.1	硬件保養及維修	□	□	□	□	□
16.2	軟件裝置及更新	□	□	□	□	□
16.3	管理及行政應用程式的維修保養	□	□	□	□	□
16.4	內聯網網絡訊息系統的維修保養	□	□	□	□	□
16.5	員工網頁/網站的更新	□	□	□	□	□
16.6	員工網頁/網站的維修保養	□	□	□	□	□
16.7	服務對象/使用者/中心會員網頁/網站的更新	□	□	□	□	□
16.8	服務對象/使用者/中心會員網頁/網站的維修保養	□	□	□	□	□
16.9	就機構資訊科技的應用和發展提供專業意見和技術支援(如發展策略、系統招標程序等)	□	□	□	□	□

第五部份：容易使用/接觸機會

17 機構的服務對象當中，有否在使用電腦方面，有特別需要的人士 (如長者、殘疾人士)？

(1) □ 有 (2) □ 沒有

18 機構現時有否為有需要人士 (如長者，殘疾人士) 提供以下支援/設施？

(1) □ 有→ (可選多於一項)
- (1) □ 協助/培訓有需要人士使用資訊科技
- (2) □ 設置幫助有需要人士使用資訊科技的特殊硬件/軟件工具
- (3) □ 設置無障礙網站
  - (1) □ 符合萬維網聯盟有關指引內的 A 級要求 (WCAG2.0 成功準則-A 級)
  - (2) □ 符合萬維網聯盟有關指引內的 AA 級要求 (WCAG2.0 成功準則-AA 級)
  - (3) □ 符合萬維網聯盟有關指引內的 AAA 級要求 (WCAG2.0 成功準則-AAA 級)
  - (4) □ 其他相關準則，請註明：_____
  - (5) □ 不知道

(2) □ 沒有

(3) □ 不知道

第六部份：人才發展

19 機構在過去一年，有否為需要使用資訊科技的員工提供訓練 (包括內部訓練及支援報讀有關課程)？

(1) □ 有→ (可選多於一項)
- (1) □ 一般電腦文書處理 (如文字處理程式、Excel)
- (2) □ 與行政工作有關的應用軟件 (如財務管理、人事管理)
- (3) □ 專為機構而設的行政及管理應用程式
- (4) □ 網絡訊息平台處理 (如撰寫網頁、Facebook)
- (5) □ 電腦圖象處理
- (6) □ 認識資訊科技的最新發展
- (7) □ 認識和業界有關的互聯網使用風險及保安 (如服務使用者資料的保密工作)
- (8) □ 認識資訊科技在社會福利界的應用
- (9) □ 其他，請註明：_____
- (10) □ 不知道

(2) □ 沒有

20 機構現時有否制定政策，鼓勵員工報讀和資訊科技應用有關的課程？

(1) □ 有→ (可選多於一項)
- (1) □ 資助員工報讀和資訊科技應用有關的課程
- (2) □ 容許員工申請有薪假期進行相關培訓
- (3) □ 機構直接為員工安排/提供相關培訓
- (4) □ 其他，請註明：_____

(2) □ 沒有

21 您認為機構在培訓員工執行和資訊科技應用有關的工作，是否足夠？

(1) □ 十分足夠

(2) □ 頗為足夠

(3) □ 頗為不足

(4) □ 十分不足

第七部份：資訊科技項目

22 總括來說，機構在各資訊科技項目投放的 **成本資金 (Capital Cost)** 是來自 (可選多於一項)：

	全部都是 (1)	大部份是 (2)	一半是 (3)	少部份是 (4)
(1) □ 機構整筆撥款	□	□	□	□
(2) □ 業務改進計劃 (BIP)	□	□	□	□
(3) □ 社會福利發展基金 (SWDF)	□	□	□	□
(4) □ 獎券基金	□	□	□	□
(5) □ 機構捐款	□	□	□	□
(6) □ 慈善基金	□	□	□	□
(7) □ 其他，請註明：_____	□	□	□	□
(8) □ 不知道				

23 總括來說，機構在各資訊科技項目的 **營運成本 (Recurrent Cost)** 是來自 (可選多於一項)：

		全部都是 (1)	大部份是 (2)	一半是 (3)	少部份是 (4)
23.1	(1) □ 機構整筆撥款	□	□	□	□
23.2	(2) □ 機構捐款	□	□	□	□
23.3	(3) □ 慈善基金	□	□	□	□
23.4	(4) □ 其他，請註明：_____	□	□	□	□
23.5	(5) □ 不知道				

24 您認為下列因素，對機構成功推行資訊科技項目的重要性如何？

		十分重要 (1)	頗為重要 (2)	頗不重要 (3)	極不重要 (4)
24.1	項目切合單位的行政管理需要	□	□	□	□
24.2	項目切合服務對象/使用者/中心會員的需要	□	□	□	□
24.3	有具經驗人士/專業顧問提供意見	□	□	□	□
24.4	員工的認同	□	□	□	□
24.5	員工的參與	□	□	□	□
24.6	使用者方便和容易使用	□	□	□	□
24.7	為使用者提供訓練	□	□	□	□

24.8	項目推行前/後有足夠的技術支援	□	□	□	□
24.9	項目推行後有足夠的資源進行維修保養	□	□	□	□
24.10	其他，請註明：_____	□	□	□	□

25 您認為有否需要為一些資訊科技項目進行機構集體統籌發展?

(1) □ 有需要 → (可選多於一項)
- (1) □ 研發適合社會服務機構的核心行政管理系統 (Core Administration System)
- (2) □ 研發適合社會服務機構服務對象/服務使用者/中心會員的核心資料系統 (CIS)
- (3) □ 研發適合社會服務機構的知識管理/交流系統
- (4) □ 研發適合社會服務機構的網上募捐系統
- (5) □ 研發以資訊科技推廣服務 (e-Service) 的系統
- (6) □ 其他，請註明：_____

(2) □ 沒有需要

(3) □ 不知道

第八部份：對社會福利界資訊科技策略的期望

26 請在下列清單選出**五項**您認為機構在資訊科技方面的需要，並按其重要性，以 1、2、3、4、5 排列優次 (1 為最重要，如此類推)：

基建

(1) □ 為有需要使用電腦的員工提供足夠的硬件/軟件

(2) □ 安裝內聯網網絡訊息系統 [e.g. Local Area Network (LAN), Wireless LAN System]

系統程式

(3) □ 人力資源管理及調配系統

(4) □ 財政管理系統

(5) □ 服務安排及調配系統 (如分配個案、安排義工)

(6) □ 推行機構內部服務使用者記錄互通系統

人才發展

(7) □ 為員工提供一般應用軟件的培訓

(8) □ 為員工提供使用特定系統 (如人力資源管理及調配系統及財政管理系統等) 的培訓

其他

(9) □ 釐定資訊科技應用的指引

(10) □ 緊貼資訊科技發展 (如雲端技術)，應用在機構/服務單位的行政及服務之上

(11) □ 其他，請註明：_____

27 若要考慮推行跨機構 (包括社會福利署) 服務對象的資料互通系統 (CIS)，你認為下列因素的重要性如何？

		十分重要 (1)	頗為重要 (2)	頗不重要 (3)	極不重要 (4)
27.1	系統能夠提升對服務對象的直接幫助	□	□	□	□

27.2	系統能夠整合服務對象的各方面需要，更有效地分配資源	□	□	□	□
27.3	系統能夠減少濫用服務的機會	□	□	□	□
27.4	資料分享的權限必須清晰明確	□	□	□	□
27.5	必須得到服務對象的同意	□	□	□	□
27.6	必須讓服務對象知道所分享資料的範疇和有關單位	□	□	□	□
27.8	必須確保服務對象的私隱得到保障	□	□	□	□
27.9	其他，請註明：_____	□	□	□	□

28 整體而言，你是否同意在未來三年，在業界嘗試推行服務對象資料互通系統 (CIS)？

(1) 十分同意

(2) 頗為同意

(3) 頗為不同意 → 原因 (可選多於一項)：
- (1) □ 財政承擔
- (2) □ 人力資源承擔
- (3) □ 處理服務對象資料保密
- (4) □ 沒有需要
- (5) □ 其他，請註明：_____

(4) 絕對不同意 → 原因 (可選多於一項)：
- (1) □ 財政承擔
- (2) □ 人力資源承擔
- (3) □ 處理服務對象資料保密
- (4) □ 沒有需要
- (5) □ 其他，請註明：_____

29 以下是現行「社會福利界資訊科技策略」所涵蓋的主要目標：

		i. 您認為自己對這些策略目標的認識有多少？				ii. 這些策略目標對機構的營運是否有幫助？				
		十分認識	頗為認識	頗不認識	極不認識	十分有幫助	頗為有幫助	不大有幫助	完全沒有幫助	不清楚這策略
		(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(5)
29.1	透過基礎建設改善行政及工作效率	□	□	□	□	□	□	□	□	□
29.2	鼓勵持續擴大使用電郵及網頁等通訊系統	□	□	□	□	□	□	□	□	□
29.3	鞏固政府推出數碼 21 資訊科技策略，為長者，殘疾人士及處境困難人士縮窄數碼鴻溝	□	□	□	□	□	□	□	□	□
29.4	更積極發展資訊科技應用程式以加強服務的效益	□	□	□	□	□	□	□	□	□
29.5	發展可跨機構共用的資訊科技應用程式	□	□	□	□	□	□	□	□	□
29.6	制定資訊科技人才發展的政策	□	□	□	□	□	□	□	□	□
29.7	善用香港社會服務聯會資訊科技資源中心(ITRC)所提供的服務	□	□	□	□	□	□	□	□	□
29.8	建議機構發展切合其情況的資訊科技策略	□	□	□	□	□	□	□	□	□

30 您認為「社會福利界資訊科技策略」，對業界及機構在下列範疇的重要性如何？

		十分重要 (1)	頗為重要 (2)	頗不重要 (3)	極不重要 (4)
30.1	為業界提供資訊科技發展的方向	□	□	□	□
30.2	為機構提供資源運用 (包括申請撥款) 的指引	□	□	□	□
30.3	有助縮窄數碼鴻溝	□	□	□	□
30.4	有助加強服務的成效	□	□	□	□
30.5	有助拓展網上服務	□	□	□	□
30.6	有助加強機構之間 (包括社會福利署) 服務使用者記錄互通系統	□	□	□	□
30.7	其他，請註明：_____	□	□	□	□

31 下列是在制定和實施「社會福利界資訊科技策略」時，不同持分者可能擔當的角色。請在每一項，按您對不同持分者的期望，在適當的數字打圈。

1=十分重要；2=不甚重要；3=不認識這單位

		軟件供應商	硬件供應商	顧問公司	SWD	機構管理層	機構員工	服務使用者	ITRC*	OGCIO **	其他持分者，請註明：_____
31.1	制定業界資訊科技發展的方向	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3	1 2 3	1 2 3
31.2	制定相關的標準及指引	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3	1 2 3	1 2 3
31.3	提供撥款/資源	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3	1 2 3	1 2 3
31.4	提供/協調技術支援	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3	1 2 3	1 2 3
31.5	提供/協調社會福利界資訊科技發展的交流平台	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3	1 2 3	1 2 3
31.6	提供相關訓練	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3	1 2 3	1 2 3
31.7	縮窄數碼鴻溝	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3	1 2 3	1 2 3
31.8	加強服務成效	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3	1 2 3	1 2 3
31.9	其他，請註：_____	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3	1 2 3	1 2 3

問卷完，多謝參與!

Appendix VIII

Questionnaire for units

「社會福利界資訊科技策略」檢討
服務單位問卷調查

這份問卷主要是想了解您所屬單位在資訊科技的設備及支援，以及在行政和提供服務方面的應用。*問卷請由服務單位主管或／及其指派的合適職員作答。*參與純屬自願性質，所收集的資料只供研究用途，個人資料將絕對保密。請安心作答，多謝你的參與。
答題方法：請以你單位的實際情況作答，並請在你所選的答案方格內加「✓」。若單位內沒有人知道題目的答案，請選「不知道」。

第一部份：基本資料

1 服務單位名稱：＿＿＿＿＿＿＿＿＿＿ 1.1 有沒有單位專用網址： (1) □ 有 (2) □ 沒有

2 服務單位註冊社工人數： 全職：＿＿＿＿＿＿名 兼職：＿＿＿＿＿＿名
(若社工為半職或需要在多於一個服務單位工作，請計入"兼職")

3 服務單位其他職員人數： 全職：＿＿＿＿＿＿名 兼職：＿＿＿＿＿＿名

第二部份：資訊科技基本設施

4 服務單位現時為有需要使用電腦的 **全職職員** 所配置的個人電腦 (包括手提電腦、平板電腦) 比率是：
(1) □ 1 人一機 (2) □2-3 人一機 (3) □ 4 人或以上一機

5 服務單位現時為 **服務對象*／服務使用者**／中心會員**** 配置的電腦 (包括手提電腦、平板電腦) 數目：＿＿＿＿＿＿部
**服務對象指接受輔導、個人成長、康復治療等介入服務的受助人*
***服務使用者／中心會員指參與機構活動，如學習班、興趣小組，但沒有接受輔導、個人成長、康復治療等介入服務的人士*

6 服務單位現時有否連接內部聯網 (Intranet) 以共享及交流訊息？
(1) □ 有 (2) □ 沒有→ 跳至第 8 題

7 內部聯網所採用的應用系統 (IT applications) 是：(可選多於一項)
(1) □ 局部區域網絡[Local Area Network (LAN)]
(2) □ 無線局域網系統 (Wireless LAN System)
(3) □ 其他，請註明：＿＿＿＿＿＿＿＿＿＿
(4) □ 不知道

8 服務單位現時採用的電腦操作系統 (Operating System) 是 (可選多於一項)：
(1) □ Windows→ 版本是 (可選多於一項)： (1) □ Windows 2000
(2) □ Windows XP

(3) □ Windows Server 2003
(4) □ Windows Vista
(5) □ Windows 7
(6) □ 不知道

(2) □ Mac → 版本是 (可選多於一項)：
(1) □ Mac OS
(2) □ Mac OS X
(3) □ 不知道

(3) □ 開放源碼 (open source) 軟件 (如 Linux, 類 Unix 系統)

(4) □ 其他，請註明：_____

(5) □ 不知道

9 服務單位現時採用的文書處理軟件是 (可選多於一項)：

(1) □ 2007 之前版本的 Microsoft Office
(2) □ Microsoft Office 2007
(3) □ Microsoft Office 2010
(4) □ Office 365
(5) □ 其他，請註明：_____
(6) □ 不知道

10 服務單位現時採用的**財務管理** (Financial Management) 應用軟件是： (可選多於一項)

(1) □ 由 軟件供應商 (IT vendor) 為機構開發 (包括為多間機構集體統籌開發)的專用軟件

軟件名稱：		開始使用年份：		現時版本的最後更新日期：	

(2) □ 由機構 自行研發 的專用軟件

軟件名稱：		開始使用年份：		現時版本的最後更新日期：	
由誰開發：	(1) □ 機構資訊科技同事 (3) □ 機構義工／委員會成員 (5) □ 其他非牟利機構收費開發		(2) □ 機構其他非資訊科技同事 (4) □ 其他組織義務開發 (6) □ 其他 (請註明):_____		

(3) □ 市場提供，加上機構適應化 (customization) 的應用軟件

軟件名稱：		開始使用年份：		現時版本的最後更新日期：	

(4) □ 市場提供的財務管理 專用 軟件

軟件名稱：		開始使用年份：		現時版本的最後更新日期：	

(5) □ 市場提供的 一般 應用軟件 (如 Excel, Access) 以處理部分程序
(6) □ 沒有採用電腦軟件處理
(7) □ 不知道

11 服務單位現時採用的**人事管理** (Human Resource Management) 應用軟件是： (可選多於一項)

(1) □ 由 軟件供應商 (IT vendor) 為機構開發 (包括為多間機構集體統籌開發)的專用軟件

軟件名稱：		開始使用年份：		現時版本的最後更新日期：	

(2) □ 由機構 自行研發 的專用軟件

軟件名稱：		開始使用年份：		現時版本的最後更新日期：	
由誰開發：	(1) □ 機構資訊科技同事		(2) □ 機構其他非資訊科技同事		
	(3) □ 機構義工／委員會成員		(4) □ 其他組織義務開發		
	(5) □ 其他非牟利機構收費開發		(6) □ 其他 (請註明):_____		

(3) □ 市場提供，加上機構適應化 (customization) 的應用軟件

軟件名稱：		開始使用年份：		現時版本的最後更新日期：	

(4) □ 市場提供的人事管理 專用 軟件

軟件名稱：		開始使用年份：		現時版本的最後更新日期：	

(5) □ 市場提供的 一般 應用軟件 (如 Excel, Access) 以處理部分程序

(6) □ 沒有採用電腦軟件處理

(7) □ 不知道

12 服務單位現時採用的**資訊保安** (information security) 軟件是：

(1) □ 市場提供的應用程式，請註明：_____

(2) □ 機構專用的應用程式 → 開始使用年份：_____ 現時版本的最後更新日期：_____

(3) □ 沒有採用電腦軟件處理

(4) □ 不知道

13 服務單位現時有沒有購買其他應用在**行政管理工作**方面的軟件？

(1) □ 有，請註明軟件名稱： i _____ ii _____

(2) □ 沒有

(3) □ 不知道

14 您對服務單位在下列資訊科技範疇的滿意程度有多少？

		十分滿意 (1)	頗為滿意 (2)	頗為不滿 (3)	十分不滿 (4)	不適用 (0)
14.1	基礎建設 (如電腦數目、內聯網網絡訊息系統)	□	□	□	□	□
14.2	管理及行政應用程式	□	□	□	□	□
14.3	用於服務的應用程式	□	□	□	□	□

第三部份：網絡通訊

15 服務單位現時採用的互聯網接駁服務是 (可選多於一項)：

(1) □ 撥號接駁

(2) □ 寬頻上網

(3) □ 專線連線

(4) □ 供應商直提供的無線上網 (如 3G／4G／WiFi)

(5) □ 其他，請註明：_____

(6) □ 不知道

第四部份：資訊科技應用系統使用範疇

16 服務單位現時有否採用服務對象 (指接受輔導、個人成長、康復治療等介入服務的受助人) 資料系統[Client Information System (CIS)]，以收集及儲存服務對象的資料？

(1) □ 有，請註明系統在機構內所採用的名稱：_____ (2) □ 沒有→ 跳至第 19 題

17 服務單位現時採用的服務對象資料系統應用軟件是：

(1) □ 由 軟件供應商 (IT vendor) 為機構開發 (包括為多間機構集體統籌開發)的專用軟件

軟件名稱：		開始使用年份：		現時版本的最後更新日期：	

(2) □ 由機構 自行研發 的專用軟件

軟件名稱：		開始使用年份：		現時版本的最後更新日期：	
由誰開發：	(1) □ 機構資訊科技同事 (3) □ 機構義工／委員會成員 (5) □ 其他非牟利機構收費開發		(2) □ 機構其他非資訊科技同事 (4) □ 其他組織義務開發 (6) □ 其他 (請註明):_____		

(3) □ 市場提供，加上機構適應化 (customization) 的應用軟件

軟件名稱：		開始使用年份：		現時版本的最後更新日期：	

(4) □ 市場提供的服務對象資料系統 專用 軟件

軟件名稱：		開始使用年份：		現時版本的最後更新日期：	

(5) □ 市場提供的 一般 應用軟件 (如 Excel, Access) 以處理部分程序

(6) □ 沒有採用電腦軟件處理

(7) □ 不知道

18 上述服務對象資料系統的主要功能是 (可選多於一項)：

(1) □ 行政需要 (如服務對象登記、安排輪候服務、進行服務統計)

(2) □ 向撥款機構提供服務統計及服務成果資料

(3) □ 介入服務的文書處理 (如個案記錄)

(4) □ 服務對象個案記錄內部互通系統

(5) □ 其他，請註明：_____

19 服務單位現時採用的其他資訊科技應用系統包括 (可選多於一項)：

(1) □ 一般服務使用者／會員 (例如參與機構活動，如學習班、興趣小組，但 沒有接受 輔導、個人成長、康復治療等介入服務的人士) 資料系統

(2) □ 活動報名系統

(3) □ 知識管理系統 (例如讓員工交流工作經驗和心得的內聯網平台)

(4) □ 網上募捐系統

(5) □ 直接應用於服務對象 (例如網上輔導、網上外展服務) 的系統

(6) □ 間接應用於服務對象 (例如義工服務、專供服務使用者瀏覽的網頁) 的系統

(7) □ 其他，請註明：_____

第五部份：資訊科技支援

20 在過往一年，服務單位負責**管理**和**支援**資訊科技工作的員工當中，有沒有具備**資訊科技學歷**的人士？

(1) □ 有 (2) □ 沒有→ 跳至第 22 題

21 他們擔當的崗位是：

(1) □ 資訊科技行政管理人員 → _____ 名

(2) □ 資訊科技技術支援人員 → _____ 名

(3) □ 其他，請註明職位：_____ → _____ 名

22 在過往一年，服務單位負責**管理**和**支援**資訊科技工作的員工當中 (包括專責及兼任的員工)，有沒有**非資訊科技學歷**的人士？

(1) □ 有 (2) □ 沒有→ 跳至第 24 題

23 整體而言，上述非資訊科技學歷的員工，在執行和資訊科技有關的工作時，主要負責的是 (可選多於一項)：

(1) □ 基礎設施 (包括硬件及軟件) 的管理和支援

(2) □ 基礎設施 (包括硬件及軟件) 的維修和保養

(3) □ 應用於管理及行政方面的程式

(4) □ 應用於服務方面的程式

(5) □ 其他，請註明：_____

24 在過往一年，服務單位曾否接觸下列機構／公司，以解決或商議和資訊科技有關的問題？

		每次都會	大多數會	有一半會	少部份會	從來不會	不知道這類供應商／此機構
		(1)	(2)	(3)	(4)	(5)	(6)
24.1	硬件供應商	□	□	□	□	□	□
24.2	軟件供應商	□	□	□	□	□	□

24.3	資訊科技顧問公司 (如資訊科技方案 (IT solution) 供應商)	□	□	□	□	□	□
24.4	香港社會服務聯會資訊科技資源中心 (ITRC)	□	□	□	□	□	□
24.5	其他，請註明：_____	□	□	□	□	□	

25 您認為服務單位在下列資訊科技應用範疇是否得到足夠的支援？

		十分足夠 (1)	頗為足夠 (2)	頗為不足 (3)	十分不足 (4)	不適用 (0)
25.1	硬件保養及維修	□	□	□	□	□
25.2	軟件裝置及更新	□	□	□	□	□
25.3	管理及行政應用程式的維修保養	□	□	□	□	□
25.4	內聯網網絡訊息系統的維修保養	□	□	□	□	□
25.5	員工網頁／網站的更新	□	□	□	□	□
25.6	員工網頁／網站的維修保養	□	□	□	□	□
25.7	服務對象／使用者／中心會員網頁／網站的更新	□	□	□	□	□
25.8	服務對象／使用者／中心會員網頁／網站的維修保養	□	□	□	□	□
25.9	就服務單位資訊科技的應用和發展提供專業意見和技術支援(如發展策略、系統招標程序等)	□	□	□	□	□

26 就下列服務單位的資訊科技裝置 (若有的話)，服務使用者有否表示不滿？

		大部份人不滿 (1)	頗多人不滿 (2)	小部份人不滿 (3)	絕少人不滿 (4)	不適用 (0)
26.1	硬件保養及維修	□	□	□	□	□
26.2	軟件裝置及更新	□	□	□	□	□
26.3	服務對象／使用者／中心會員網頁／網站的更新	□	□	□	□	□
26.4	服務對象／使用者／中心會員網頁／網站的維修保養	□	□	□	□	□

27 機構在下列資訊科技範疇，有否既定政策或指引的**文件**？

		有 (1)	沒有，但有計劃撰寫 (2)	沒有，亦未有計劃撰寫 (3)
27.1	資訊科技的發展方向	□	□	□
27.2	基礎設備 (包括硬件及軟件) 的標準	□	□	□
27.3	機構／單位網頁的易讀性(web accessibility)	□	□	□
27.4	保護資訊科技系統的標準 (如防止黑客入侵的裝置)	□	□	□
27.5	保護資料／數據完整 (data integrity) 裝置的標準	□	□	□

27.6	處理資訊保安事故 (如資料意外遺失及外洩) 的措施	□	□	□
27.7	處理資訊保安事故的責任架構	□	□	□
27.8	其他，請註明：_____	□	□	□

第六部份：容易使用／接觸機會

28 服務單位的服務對象當中，有否在使用電腦方面，有特別需要的人士 (如長者、殘疾人士)？

(1) □ 有　　(2) □ 沒有

29 服務單位現時有否為有需要人士 (如長者，殘疾人士) 提供以下支援／設施？

(1) □ 有→ (可選多於一項)
- (1) □ 協助／培訓有需要人士使用資訊科技
- (2) □ 設置幫助有需要人士使用資訊科技的特殊硬件／軟件工具
- (3) □ 設置無障礙網站
  - (1) □ 符合萬維網聯盟有關指引內的 A 級要求 (WCAG2.0 成功準則-A 級)
  - (2) □ 符合萬維網聯盟有關指引內的 AA 級要求 (WCAG2.0 成功準則-AA 級)
  - (3) □ 符合萬維網聯盟有關指引內的 AAA 級要求 (WCAG2.0 成功準則-AAA 級)
  - (4) □ 其他相關準則，請註明：_____
  - (5) □ 不知道

(2) □ 沒有

(3) □ 不知道

30 服務單位有否為有需要人士提供下列加強接觸資訊科技的服務？

(1) □ 有→ (可選多於一項)
- (1) □ 在服務單位為服務對象／使用者／中心會員設置電腦
- (2) □ 提供電腦及周邊設備 (peripheral equipment) 讓服務使用者借用
- (3) □ 提供購買特殊設備的優惠計劃，如盲人點字機和打印機、互動語音系統 (Interactive Voice Response System) 等
- (4) □ 其他相關服務，請註明：_____
- (5) □ 不知道

(2) □ 沒有

(3) □ 不知道

31 在過去一年，服務單位有否為有需要人士 (如長者，殘疾人士) 提供訓練，加強他們使用資訊科技產品的能力？

(1) □ 有　　(2) □ 沒有

第七部份：人才發展

32 機構／服務單位在過去一年，有否為需要使用資訊科技的員工提供訓練 (包括內部訓練及支援報讀有關課程)？

(1) □ 有→ (可選多於一項)
- (1) □ 一般電腦文書處理 (如文字處理程式、Excel)
- (2) □ 與行政工作有關的應用軟件 (如財務管理、人事管理)
- (3) □ 專為機構而設的行政及管理應用程式
- (4) □ 網絡訊息平台處理 (如撰寫網頁、Facebook)

(5) □ 電腦圖象處理

(6) □ 認識資訊科技的最新發展

(7) □ 認識和業界有關的互聯網使用風險及保安 (如服務使用者資料的保密工作)

(8) □ 認識資訊科技在社會福利界的應用

(9) □ 其他，請註明：_____

(10) □ 不知道

(2) □ 沒有

33 整體來說，您認為服務單位內需要使用資訊科技的員工，對下列項目是否有足夠認識？

		十分足夠 (1)	頗為足夠 (2)	頗為不足 (3)	十分不足 (4)	不知道 (5)
33.1	一般電腦文書處理 (如文字處理程式、Excel)	□	□	□	□	□
33.2	與行政工作有關的應用軟件 (如財務管理、人事管理)	□	□	□	□	□
33.3	專為機構而設的行政及管理應用程式	□	□	□	□	□
33.4	網絡訊息平台處理 (如撰寫網頁、Facebook)	□	□	□	□	□
33.5	電腦圖象處理	□	□	□	□	□
33.6	認識資訊科技的最新發展	□	□	□	□	□
33.7	認識和業界有關的互聯網使用風險及保安 (如服務對象／使用者／中心會員資料保密工作)	□	□	□	□	□
33.8	認識資訊科技在社會福利界的應用	□	□	□	□	□

34 機構現時有否制定政策，鼓勵員工報讀和資訊科技應用有關的課程？

(1) □ 有→ (可選多於一項)

(1) □ 資助員工報讀和資訊科技應用有關的課程

(2) □ 容許員工申請有薪假期進行相關培訓

(3) □ 機構直接為員工安排／提供相關培訓

(4) □ 其他，請註明：_____

(2) □ 沒有

35 您認為機構在培訓員工執行和資訊科技應用有關的工作，是否足夠？

(1) □ 十分足夠

(2) □ 頗為足夠

(3) □ 頗為不足

(4) □ 十分不足

第八部份：資訊科技項目

36

	機構**現時**有沒有採用以下的資訊科技應用系統？		機構會否在**未來三年**，**推出或更新**下列資訊科技項目？		
	有 (1)	沒有 (2)	有計劃推出或更新 (1)	沒有計劃推出或更新 (2)	不知道 (3)

36.1	財政管理系統(包括發收據應用系統／Invoice System)	□	□	□	□	□
36.2	人力資源管理系統	□	□	□	□	□
36.3	內聯網網絡訊息系統 [e.g. Local Area Network (LAN),Wireless LAN System]	□	□	□	□	□
36.4	服務對象 (指接受輔導、個人成長、康復治療等介入服務的受助人)資料系統(CIS)	□	□	□	□	□
36.5	一般服務使用者／會員 (指參與機構活動，如學習班、興趣小組，但沒有接受輔導、個人成長、康復治療等介入服務的人士) 資料系統	□	□	□	□	□
36.6	活動報名系統	□	□	□	□	□
36.7	知識管理系統(例如讓員工交流工作經驗和心得的內聯網平台)	□	□	□	□	□
36.8	網上募捐系統	□	□	□	□	□
36.9	直接應用於服務對象 (例如網上輔導、網上外展服務) 的系統	□	□	□	□	□
36.10	間接應用於服務對象 (例如義工服務、專供服務使用者瀏覽的網頁) 的系統	□	□	□	□	□
36.11	其他，請註明：_____	□	□	□	□	□

37 您認為有否需要為一些資訊科技項目進行機構集體統籌發展?

(1) □ 有需要 → (可選多於一項)
- (1) □ 研發適合社會服務機構的核心行政管理系統 (Core Administration System)
- (2) □ 研發適合社會服務機構服務對象／服務使用者的核心資料系統 (CIS)
- (3) □ 研發適合社會服務機構的知識管理／交流系統
- (4) □ 研發適合社會服務機構的網上募捐系統
- (5) □ 研發以資訊科技推廣服務 (e-Service) 的系統
- (6) □ 其他，請註明：_____

(2) □ 沒有需要

(3) □ 不知道

38 服務單位在各資訊科技項目投放的 **<u>成本資金 (Capital Cost)</u>**是來自 (可選多於一項)：

		全部都是 (1)	大部份是 (2)	一半是 (3)	少部份是 (4)
38.1	(1) □ 機構整筆撥款	□	□	□	□
38.2	(2) □ 業務改進計劃 (BIP)	□	□	□	□
38.3	(3) □ 社會福利發展基金 (SWDF)	□	□	□	□
38.4	(4) □ 獎券基金	□	□	□	□
38.5	(5) □ 機構捐款	□	□	□	□

38.6	(6) □ 慈善基金	□	□	□	□
38.7	(7) □ 其他，請註明：_____	□	□	□	□
38.8	(8) □ 不知道				

39 服務單位在各資訊科技項目的 **營運成本 (Recurrent Cost)**是來自 (可選多於一項)：

		全部都是 (1)	大部份是 (2)	一半是 (3)	少部份是 (4)
39.1	(1) □ 機構整筆撥款	□	□	□	□
39.2	(2) □ 機構捐款	□	□	□	□
39.3	(3) □ 慈善基金	□	□	□	□
39.4	(4) □ 其他，請註明：_____	□	□	□	□
39.5	(5) □ 不知道				

40 您認為下列因素，對服務單位成功推行資訊科技項目的重要性如何？

		十分重要 (1)	頗為重要 (2)	頗不重要 (3)	極不重要 (4)
40.1	項目切合單位的行政管理需要	□	□	□	□
40.2	項目切合服務對象／使用者／中心會員的需要	□	□	□	□
40.3	有具經驗人士／專業顧問提供意見	□	□	□	□
40.4	員工的認同	□	□	□	□
40.5	員工的參與	□	□	□	□
40.6	使用者方便和容易使用	□	□	□	□
40.7	為使用者提供訓練	□	□	□	□
40.8	項目推行前／後有足夠的技術支援	□	□	□	□
40.9	項目推行後有足夠的經濟資源進行維修保養	□	□	□	□
40.10	其他，請註明：_____	□	□	□	□

第九部份：對社會福利界資訊科技策略的期望

41 請在下列清單選出**五項**您認為機構在資訊科技方面的需要，並按其重要性，以 1、2、3、4、5 排列優次 (1 為最重要，如此類推)：

基建

(1) □ 為有需要使用電腦的員工提供足夠的硬件／軟件

(2) □ 安裝內聯網網絡訊息系統 [e.g. Local Area Network (LAN),Wireless LAN System]

系統程式

(3) □ 人力資源管理及調配系統

(4) □ 財政管理系統

(5) □ 服務安排及調配系統 (如分配個案、安排義工)

(6) □ 推行機構內部服務使用者記錄互通系統

人才發展

(7) □ 為員工提供一般應用軟件的培訓

(8) □ 為員工提供使用特定系統 (如人力資源管理及調配系統及財政管理系統等)的培訓

其他

(9) □ 釐定資訊科技應用的指引

(10) □ 緊貼資訊科技發展 (如雲端技術)，應用在機構／服務單位的行政及服務之上

(11) □ 其他，請註明：_____

42 若要考慮推行跨機構 (包括社會福利署) 服務對象的資料互通系統 (CIS)，你認為下列因素的重要性如何？

		十分重要	頗為重要	頗不重要	極不重要
		(1)	(2)	(3)	(4)
42.1	系統能夠提升對服務對象的直接幫助	□	□	□	□
42.2	系統能夠綜合服務對象的各方面需要，可以更有效地分配資源	□	□	□	□
42.3	系統能夠減少濫用服務的機會	□	□	□	□
42.4	資料分享的權限必須清晰明確	□	□	□	□
42.5	必須得到服務對象的同意	□	□	□	□
42.6	必須讓服務對象知道所分享資料的範疇和有關單位	□	□	□	□
42.7	必須確保服務對象的私隱得到保障	□	□	□	□
42.8	其他，請註明：_____	□	□	□	□

43 整體而言，你是否同意在未來三年，在業界嘗試推行服務對象資料互通系統(CIS)？

(1) □ 十分同意

(2) □ 頗為同意

(3) □ 頗為不同意 → 原因 (可選多於一項) :

- (1) □ 財政承擔
- (2) □ 人力資源承擔
- (3) □ 服務對象資料保障
- (4) □ 沒有需要
- (5) □ 其他，請註明：_____

(4) □ 絕對不同意 → 原因 (可選多於一項) :

- (1) □ 財政承擔
- (2) □ 人力資源承擔
- (3) □ 服務對象資料保障
- (4) □ 沒有需要
- (5) □ 其他，請註明：_____

44	以下是現行「社會福利界資訊科技策略」所涵蓋的主要目標：	i. 您認為自己對這些策略目標的認識有多少？	ii. 這些策略目標對機構的營運是否有幫助？

		十分認識	頗為認識	頗不認識	極不認識	十分有幫助	頗為有幫助	不大有幫助	完全沒有幫助	不清楚這策略
		(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(5)
44.1	透過基礎建設改善行政及工作效率	□	□	□	□	□	□	□	□	□
44.2	鼓勵持續擴大使用電郵及網頁等通訊系統	□	□	□	□	□	□	□	□	□
44.3	鞏固政府推出數碼 21 資訊科技策略，為長者，殘疾人士及處境困難人士縮窄數碼鴻溝	□	□	□	□	□	□	□	□	□
44.4	更積極發展資訊科技應用程式以加強服務的效益	□	□	□	□	□	□	□	□	□
44.5	發展可跨機構共用的資訊科技應用程式	□	□	□	□	□	□	□	□	□
44.6	制定資訊科技人才發展的政策	□	□	□	□	□	□	□	□	□
44.7	善用香港社會服務聯會資訊科技資源中心(ITRC)所提供的服務	□	□	□	□	□	□	□	□	□
44.8	建議機構發展切合其情況的資訊科技策略	□	□	□	□	□	□	□	□	□

45 您認為「社會福利界資訊科技策略」，對業界及機構／服務單位在下列範疇的重要性如何？

		十分重要	頗為重要	頗不重要	極不重要
		(1)	(2)	(3)	(4)
45.1	為業界提供資訊科技發展的方向	□	□	□	□
45.2	為機構提供資源運用 (包括申請撥款) 的指引	□	□	□	□
45.3	有助縮窄數碼鴻溝	□	□	□	□
45.4	有助加強服務的成效	□	□	□	□
45.5	有助拓展網上服務	□	□	□	□
45.6	有助加強機構之間 (包括社會福利署) 服務使用者記錄互通系統	□	□	□	□
45.7	其他，請註明：__________	□	□	□	□

46 您認為「社會福利界資訊科技策略」… 不同持份者 … 能擔當的 … 請在每一項，… 持份者的期望 … 圈。

1=十分重要；2=不甚重要；3= … 這單位

			硬件供應商		SWD		機構員工		ITRC*		其他持份者，請註明：____
46.1	制定業界資訊科技發展的方向	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3	1 2 3	1 2
46.2	制定相關的標準及指引	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3	1 2 3	1 2
46.3	提供撥款／資源	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3	1 2 3	1 2
46.4	提供／協調技術支援	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3	1 2 3	1 2
46.5	提供／協調社會福利界資訊科技發展的交流平台	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3	1 2 3	1 2
46.6	提供相關訓練	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3	1 2 3	1 2
46.7	縮窄數碼鴻溝	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3	1 2 3	1 2
46.8	加強服務成效	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3	1 2 3	1 2
46.9	其他，請註明：______	1 2	1 2	1 2	1 1	2 2	1 2	1 2	1 2 3	1 2 3	1 2

*香港社會服務聯會資訊科技資源中心 **香港資訊科技總監辦公室

問卷完，多謝參與!

Appendix IX

Baseline of Information Technology (IT) Capacity by NGO Size in mid-2012

		% of NGOs of Various Sizes[39]			
	Key Areas/Parameters	**Small**	**Medium**	**Large**	**All Sizes**
(A)	**IT Policy, Strategy, and Plan**				
(A1)	***Development Direction and Standards***				
1	Percentage of NGOs having direction in IT Development	14.3	12.7	38.9	18.8
2	Percentage of NGOs having standards in infrastructure (including hardware and software)	33.3	33.8	72.2	41.8
3	Percentage of NGOs implemented web accessibility standards of agency/unit website	22.2	21.1	33.3	24.7
(A2)	***Data Security***				
4	Percentage of NGOs having standards in protection of the IT systems (such as protection against hacking)	22.2	28.2	41.7	28.8
5	Percentage of NGOs having standards in protecting data integrity	28.6	28.2	50.0	32.4
6	Percentage of NGOs having introduced measures to manage data security incidents (such as accidental loss and leakage of data)	30.2	28.2	66.7	37.1
7	Percentage of NGOs having organizational structure with roles and responsibilities in handling data security incidents	14.3	15.5	38.9	20.0
(B)	**Infrastructure**				
(B1)	***Website***				
1	Percentage of NGOs having set up agency website	85.7	95.8	100	92.9
2	Percentage of NGOs having set up unit website	63.5	70.5	44.3	50.2
(B2)	***Ratio in PC to staff requiring computer***[40]				
3	Percentage of NGOs achieving one PC per staff member requiring computer	53.7	41.2	39.7	40.8

[39] NGO size are categorised by the amount of subvention allocations in the period of 2011-12. Those with a lump sum grant allocation of ≤ HK$5,000,000 were categorized as small, those with ≥ HK$5,000,001 and ≤ HK$50,000,000 as medium and those with allocation ≥ HK$50,000,001 as large. Using these criteria, among the 171 NGOs subvented during this period, 36 were categorised as large, 72 medium and 63 small size NGOs.

[40] "Staff requiring computer" is self-defined by individual service unit of NGO. More details of the extent to which staff requiring computer are provided with computers can be found in the relevant table in Appendix IV.

	Key Areas/Parameters	% of NGOs of Various Sizes[39]			
		Small	Medium	Large	All Sizes
(B3)	***Network***				
4	Percentage of NGOs having set up Local Area Network (LAN) (service unit)	33.3	62.1	67.5	64.5
5	Percentage of NGOs having installed wireless LAN System(service unit)	37.8	37.6	29.5	31.5
(C)	**Applications Commonly Used in Welfare Service Sector**				
	Percentage of NGOs Agencies having the following applications				
1	Financial Management	73.0	78.9	97.2	80.6
2	Human Resource Management	22.2	50.7	77.8	45.9
3	Intranet	61.9	67.6	91.7	70.6
4	Client Information System (CIS)]	33.3	40.8	80.6	46.5
5	Membership Information System	47.6	40.8	77.8	51.2
6	Activity Enrolment System	47.6	53.5	66.7	64.1
7	Knowledge Management System	14.3	12.7	58.3	22.9
8	e-Donation System	14.3	23.9	52.8	26.8
9	Direct Service Provision (such as internet counseling and cyber outreach)	0.0	11.3	11.1	7.1
10	Indirect Service Provision (such as volunteer services, website dedicated to members)	33.3	32.4	58.3	38.2

Appendix X

NGO IT Development – Self-Assessment Template

1. The purpose of this template is to facilitate individual NGO to "quantify" their relative position of IT Development within the social welfare sector.
2. An NGO can analyze its position with respect to its relative size or with respect to the whole sector.
3. For each item with reference to an NGO as a whole, an NGO gains the relevant score depending on whether the answer is "yes" or "no". For instance, if a small NGO has developed a policy or plan for the "direction in IT Development", it will obtain the score of 93[41], otherwise it will obtain the score of 43; and so forth.
4. For each item with reference to the percentage of service unit within an NGO in terms of infrastructure, an NGO gains the relevant score depending on whether it achieves a percentage which is lower than the median percentage or higher. For instance, if a small NGO having 20% of its service unit with LAN set up, i.e. higher than the median of 8.3%, it will obtain the score of 75[42], otherwise if it is lower the median, the score will be 25 instead, and so forth.
5. The average score of each major area and the overall average score can be interpreted as representing the percentile of the NGO. For example, an average score of 50 would mean that the NGO is situated at the median among all other NGOs; an average of 90 would imply the NGO is ahead of 90% of the other NGOs; an average of 10 would imply the NGO has a great deal to catch up.

		Sizes of NGOs[43]							
		Small		Medium		Large		All Sizes	
		No	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**
	(A) IT Strategy and Policy								

[41] As only 14% of the small NGOs had a policy or plan for the direction in IT Development, an NGO having that will be, on average, at the 93rd percentile (i.e. mathematically, score = 100- 14/2.) Similarly, for a small NGO not having the policy or plan, it will be on average, at the 43rd percentile (i.e. mathematically, score = (100 – 14)/2.)

[42] Though we can have a more elaborated and precise scoring procedure for these items with reference to the infrastructure in service units, the scoring procedure is meant to be as simple as possible. Thus, an NGO having a relevant infrastructure in its service units better than the median among NGOs, the score will be 75(the mid-point between the median and 100th percentile), and otherwise a score of 25 (the mid-point between 0 and the median).

[43] For this study, those with a lump sum grant allocation of ≤ HK$5,000,000 were categorized as small, those with ≥ HK$5,000,001 and ≤ HK$50,000,000 as medium and those with allocation ≥ HK$50,000,001 as large.

			Sizes of NGOs[43]							
			Small		Medium		Large		All Sizes	
			No	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**
	Development Direction and Standards									
1	Having direction in IT Development		43	93	44	94	31	81	41	91
2	Having standards in infrastructure (including hardware and software)		33	83	33	83	14	64	29	79
3	Implemented web accessibility standard for agency/ unit website		39	89	39	89	33	83	38	88
	Data Security									
4	Having standards in protection of the IT systems		39	89	36	86	29	79	36	86
5	Having standards in protecting data integrity		36	86	36	86	25	75	34	84
6	Having introduced measures to manage incidents regarding data security		35	85	36	86	17	67	31	81
7	Having organizational structure with roles and responsibilities in handling security incident		43	93	42	92	31	81	40	90
A	*Average score for the above 7 items (A)*									
	(B) Infrastructure									
	Website									
1	Having set up agency website		7	57	2	52	0	50	4	54
2	Having percentage of service units with website set up lower/higher than the median %	Median %	63.2%		66.7%		47.2%		58.3%	
		Score for lower/higher than median	25	75	25	75	25	75	25	75
	Ratio in PC to staff requiring computer									
3	Having percentage of service units achieved one PC per staff member requiring computer lower/higher than the median %	Median %	80.0%		44.4%		44.9%		55.2%	
		Score for lower/higher than median	25	75	25	75	25	75	25	75
	Network									
4	Having percentage of service units with LAN set up lower/higher than the median %	Median %	8.3%		50.0%		69.9%		45.1%	
		Score for lower/higher than median	25	75	25	75	25	75	25	75
5	Having percentage of service units with wireless LAN installed lower/higher than the median %	Median %	26.7%		33.3%		23.0%		27.5%	
		Score for lower/higher than median	25	75	25	75	25	75	25	75
B	*Average Score for the above 5 items (B)*									
	(C) Having Applications in:		**No**	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**
1	Financial Management		14	64	11	61	1	51	10	60
2	Human Resource Management		39	89	25	75	11	61	27	77
3	Intranet		19	69	16	66	4	54	15	65

		Sizes of NGOs[43]							
		Small		Medium		Large		All Sizes	
		No	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**
4	Client Information System (CIS)	33	83	30	80	10	60	27	77
5	Membership Information System	26	76	30	80	11	61	24	74
6	Activity Enrolment System	26	76	23	73	17	67	18	68
7	Knowledge Management System	43	93	44	94	21	71	39	89
8	e-Donation System	43	93	38	88	24	74	37	87
9	Direct Service Provision	50	100	44	94	44	94	46	96
10	Indirect Service Provision	33	83	34	84	21	71	31	81
C	*Average score for the above 10 items (C)*								
	Overall Average Score = (A+B+C)/3								