

**For information on
13 April 2015**

**Legislative Council Panel
on Information Technology and Broadcasting**

Progress Report on Digital Inclusion

Purpose

This paper updates Members on progress of the Government's digital inclusion initiatives.

Background

2. Advancement in information and communications technology (ICT) opens up opportunities for special need groups to expand their social horizons, further integrate with the society and enhance their quality of life. However, the lack of access and knowhow of these needy groups inhibits their ability to maximise the opportunities offered by the increasingly digitalised world. To bridge digital divide, the Government actively promotes digital inclusion to achieve the vision of “empowering everyone through technology”.

3. We continue to implement targeted digital inclusion initiatives to render support to different needy groups including persons with disabilities, the elderly and students of limited means. The following paragraphs set out the progress of our various digital inclusion measures.

Digital Inclusion Mobile Applications for Underprivileged Groups

4. Hong Kong is a mature digital economy with a world-class ICT infrastructure that supports reliable, fast, and generally affordable Internet connectivity. Mobile apps are proliferating in number and variety. While the mobile channel is becoming a much-used platform for delivering services, the commercial incentive for developing local mobile apps for the needy groups is low due to our small market and the lack of understanding of the user requirements.

5. To encourage the development of mobile apps to support needy groups, we launched two rounds of a scheme to provide funding support for non-governmental organisations (NGOs) to develop mobile apps to cater for the special needs of their service recipients. An Advisory Committee comprising veteran Information Technology (IT) practitioners and representatives of special need groups was formed to select proposals having regard to their functionality, originality, practicality, feasibility and cost-effectiveness, as well as to oversee the development of selected proposals. The composition of the Advisory Committee is at **Annex A**.

First Round of the Funding Scheme in 2012-13

6. The first round of seven mobile apps completed in late 2013 has received encouraging user feedback and industry recognition. The learning apps for children beset with autism, cognitive disability and hearing impairment are found to be effective in stimulating learning interests and enhancing learning effectiveness. According to user feedback, the apps help the visually impaired and the physically disabled to move about independently, while facilitate the elderly and ethnic minorities to integrate into the community. Details of these apps are set out at **Annex B**.

Second Round of the Funding Scheme in 2014-15

7. We launched the second round of the funding scheme in early January 2014. A total of 41 proposals were received. In consultation with the Advisory Committee, five proposals were selected, as follows —

Mobile Apps	Target Users	Use
Articulation Screening and Training Tool	Children with hearing impairment	Assess and train phonological abilities
HOPE Chinese Character Game	Children with dyslexia	Learn the structure of Chinese characters by decoding method
MathAid	Students with visual impairment	Reinforce the learning of core mathematical skills
A Click to Know Dementia	Persons beset with dementia	Provide cognitive training and help seek emergency assistance when getting lost
SignChat	Persons with hearing impairment	Maintain a library of messages in sign languages for communication through instant messaging applications

Details of these apps are set out at **Annex C**.

8. Development of these five apps has just completed. Three of them were launched in March 2015 while the remaining are undergoing further testing and refinement. We have arranged a series of promotional activities with the lead organisations to publicise the five apps, including distributing leaflets, staging roving exhibition and promotion through the NGOs' networks, etc. In particular, we have organised a two-day exhibition cum appreciation ceremony at the Hong Kong Digital Life Carnival on 11-12 April 2015 to showcase the apps. We will continue to widely promote these apps among target users.

9. In implementing the programme in respect of mobile application development, it was found that connecting NGOs with IT companies brought mutual benefits. In February 2014, we organised an event known as 「當 NGO 遇上 IT 人」 for social service organisations to have short one-on-one meetings with IT companies to germinate ideas that can leverage ICT to enhance service delivery. Given the positive feedback, we will run the event again later this year to generate new ideas for ICT-powered social services. We would also review whether a third round of funding support for the development of mobile apps should be organised.

Web Accessibility Campaign

10. Online information and services should be accessible and clear to everybody, including persons with disabilities. We have adopted a multi-pronged strategy to drive web accessibility.

Example Setting

11. All government websites are accessible since 1999 to facilitate persons with disabilities to access online information and services. We have introduced more stringent accessibility requirements since 2012, mandating all government websites to meet Level AA standard of the Web Content Accessibility Guidelines Version 2.0 promulgated by the World Wide Web Consortium (W3C). As at April 2015, 451 of 465 government websites (97%) have reached these more stringent standards. The remaining 14 websites are being revamped and they will achieve these standards after completion.

12. Similarly, all websites of statutory and public sector organisations¹ are basically accessible. Of them, 49%, as detailed at **Annex D**, have met the more stringent requirements under our Web Accessibility Recognition Scheme or the guidelines promulgated by the W3C. In addition, upon the request of persons with hearing impairment, we worked with the Legislative Council to increase the size and resolution of the sign language window in its TV broadcast and webcasting.

¹ Based on our assessment of the 79 statutory and public sector organisations on the Civil & Miscellaneous List which have corporate websites

Fostering Awareness

13. Driving web accessibility requires concerted efforts from many stakeholders, namely executives overseeing corporate communication through websites and mobile apps, web designers, webmasters in charge of day-to-day web maintenance, and users disseminating contents through the web. Since 2011, we have organised over 70 seminars and workshops to raise awareness among different stakeholders of the importance and benefits of web accessibility, highlighting that an accessible website would help business by optimising their websites for search engines, widening their customer base as well as fulfilling their corporate social responsibilities. Over 7 000 participants attended these events. In view of the latest e-book initiatives, we organised a seminar in November 2014 for the W3C and the World Blind Union to share the latest developments and challenges in making e-textbook and interactive on-line learning resources accessible with over 50 local e-Learning professionals.

14. To enhance the public's knowledge and awareness, we took the opportunity of this year's Web Accessibility Recognition Scheme to introduce a quiz on basic web accessibility knowledge for people taking part in the on-line voting for "Most Favourite Accessible Website/Mobile Apps" Awards. The quiz has received over 7 000 hits in the 3-week voting period.

Promulgating Resources

15. The thematic web accessibility portal (<http://www.webforall.gov.hk>) provides an array of practical information and resources, such as publications, website templates, best practices, educational videos, etc. to facilitate organisations to implement web accessibility. The portal has recorded a total of 4.2 million page views and 350 000 downloads of various resources since the launch of the Web Accessibility Campaign in 2011, an increase of 62% and 89% respectively over the past year.

16. In recognition of our comprehensive approach, the W3C encouraged us to share our experience and resources with other economies.

Encouraging Adoption

17. Since 2012-13, we have been co-organising the Web Accessibility Recognition Scheme with the Equal Opportunities Commission. Under the scheme, we provide participating organisations with free assessment and advisory services to help them understand and meet the technical requirements. We also seek to reinforce good practices through prominent recognition and publicise their achievements to entice emulation by others. Participation in the scheme, both in terms of number of organisations and sectors, is on the rise. In the third round of the scheme concluded in April 2015, 199 accessible websites and 45 mobile apps were awarded, representing an increase of 46% from 2014.

Facilitating ICT adoption of the Elderly

18. The elderly, with relatively low ICT adoption in the past, is one of the priority groups of our digital inclusion initiatives. We supported the development of a dedicated portal (www.e123.hk) for the elderly to facilitate their access to online information and services surrounding their needs and interests through an elderly-friendly interface. Through different computer literacy programmes and award schemes, we teach and encourage them to use ICT for betterment. With increasing awareness of ICT and the popularity of mobile technology in recent years, ICT adoption among the elderly has increased substantially over the past ten years from 4%² in 2004 to 35%³ in 2014.

19. However, with an illiteracy rate at 24.5%⁴, many seniors encounter difficulty in grasping digital contents. Besides, about 4%⁵ of the elderly population are institutionalised. To address these constraints, we embarked on an ICT Outreach Programme to engage the institutionalised elderly and those “hidden” elderly to arouse their interests in ICT through digital games and communication software. We commissioned three elderly service organisations to implement the programme in different parts of Hong Kong in 2014. Through various tailor-made activities and one-on-one coaching by volunteers, we reached over 1 100 seniors to help them use tablets and other mobile devices to broaden their social circles and spice up their life. The activities were well-received. As a result of the programme and seniors’ encouraging response, some elderly homes plan to install tablets in their premises for their residents. A summary of the achievements of the programme is set out at **Annex E**.

20. In view of encouraging achievements, we will repeat the programme in 2015. In addition to institutionalised and “hidden” elderly, we will extend the scope to cover elderly receiving day care centre services and home care services. An open invitation for proposals was issued on 3 February and by the submission deadline on 17 March, we received 11 proposals. The Advisory Committee of the programme, composition at **Annex F**, will evaluate the proposals with a view to selecting up to four service agencies covering all 18 districts in the territory. We aim at commencing the new round of the programme in the second half of 2015.

² Source : figure on the percentage of persons aged 60 or above having used the Internet in the past 12 months from Census and Statistics Department in 2004

³ Source : provisional figure on the percentage of persons aged 60 or above having used the Internet in the past 12 months from the Thematic Household Survey conducted by Census and Statistics Department in 2014

⁴ Source : figure from the 2011 Hong Kong Population Census on the proportion of persons aged 60 or above with no schooling or only pre-primary education

⁵ Based on a report published by Social Welfare Department, the number of elderly living in residential care places in September 2014 was round 61 000; according to Census and Statistics Department, the elderly population of persons aged 60 or above in 2014 was 1 527 000

Internet Learning Support Programme

21. We continue to implement “i Learn at Home” Internet Learning Support Programme through the two Implementers, namely the Boys’ & Girls’ Clubs Association of Hong Kong (BGCA) and WebOrganic, in the eastern and western parts of Hong Kong respectively to deliver the following services to help eligible families undertake web-based learning at home —

- (a) affordable computers suitable for learning purpose with flexible payment options;
- (b) Internet service at concessionary pricing;
- (c) free training to students on using the Internet for learning purpose;
- (d) free training to help parents provide guidance and support to their children on web-based learning;
- (e) free technical and user support on using computer equipment and the Internet; and
- (f) free social support on proper and safe use of the Internet.

22. With the implementation of the fine-tuning arrangements subsequent to the mid-term review in 2013, take-up of programme services continues to improve. A total of 51 000 services were delivered in the first nine months of 2014-15, which is comparable to the full-year total of 2013-14. Broadband subscription and technical support service increased significantly by 70% and 84% respectively, as compared with 2013-14. Technical support service is heavily used by programme beneficiaries. A summary of programme performance is set out at **Annex G**.

23. According to a telephone survey in November 2014⁶, 76% of respondents gave a satisfaction score of 4 or above out of a maximum of 5, which is higher than the 71.5% satisfaction rate in a similar survey conducted in late 2012⁷. The programme has also narrowed the gap in respect of ICT usage between students from low-income families and their mainstream counterparts. Based on our latest survey on ICT use, since the launching of the Subsidy Scheme on Internet Access Charges in 2010 and inception of the programme in 2011, Internet adoption rate for students of low-income families has increased from 87.0%⁸ in 2010 to 96.4%⁹ in 2014, which is roughly on par with that of mainstream students.

24. The two Implementers are making steady progress in reaching out to target beneficiaries through their service networks and enhancing cost-effectiveness. In late 2014, they jointly organised a computer donation initiative to solicit 200 brand new computers for families in financial need.

⁶ Source : a telephone survey conducted by Aristo Market Research & Consulting Company Limited in late 2014

⁷ Source : a telephone survey conducted by MVA Hong Kong Limited in late 2012

⁸ Source : a survey conducted by Policy 21 Ltd in early 2010.

⁹ Source : provisional figures from the Thematic Household Survey conducted by Census and Statistics Department from June to August 2014

25. Financially, as at 31 December 2014, the expenditure incurred in the programme was \$88.3 million. The amount of cumulative doubtful debts and bad debts resulting from delinquent instalment payments for computer equipment and broadband services was \$754,108, representing about 3.5% of the total amount of hire purchases. The Implementers have put in place a systematic mechanism to monitor and recover delinquent loans. Reminders will be sent to the family in question upon overdue payment. Should the situation warrant, a social worker will visit the family to ascertain the reasons of non-payment and identify any need for assistance.

26. As the programme will complete its five-year term by August 2016, we are making preparations for another review. We will consider the way forward of the programme in the light of its effectiveness, the latest development of IT in Education and the service needs among students from low-income families.

Way Forward

27. In the coming year, we will continue with various digital inclusion measures to help various underprivileged groups to enhance their quality of life through ICT. To promote digital inclusion, we will organise a variety show for the youth entitled “Digital Inclusion Let IT Play” on 24 April 2015 as the ceremonial close of the International IT Fest 2015. The event, which can accommodate over 1 000 young people, will feature IT interactive games, presentation of appreciation to volunteers who have helped out in our various digital inclusion programmes, performance by singers, as well as a robot dance. We have launched radio publicity and online games surrounding the theme of digital inclusion to heighten public awareness of digital inclusion and encourage their participation in building a thriving and inclusive information society.

Advice Sought

28. Members are invited to note the above progress update on our digital inclusion initiatives.

Office of the Government Chief Information Officer
Commerce and Economic Development Bureau
April 2015

**Advisory Committee on the Funding Scheme for the Development of
Digital Inclusion Mobile Apps**

Chairperson:

Deputy Government Chief Information Officer (Policy and Community)

Members:

Mr Allen CHAN Kam-yuen, MH Member, Rehabilitation Advisory Committee

Mr CHEUNG Kin-fai, MH Chairman, Hong Kong Joint Council for
People With Disabilities

Dr David CHUNG Wai-keung ICT Professional

Dr Vincent NG To-yee ICT Professional

Mr Emil CHAN Ka-ho ICT Professional

Commissioner for Rehabilitation, Labour and Welfare Bureau

Chief Systems Manager (Digital Inclusion), OGCI

Senior Systems Manager (Strategy Development), OGCI

Secretary:

Senior Systems Manager (Digital Inclusion), OGCI

First Round of Digital Inclusion Mobile Apps in 2012-13

Mobile Apps	Function	Population of Relevant Needy Groups	Download Counts (up to 15.3.2015)	Remarks and User Feedbacks
Auditory and Speech Training App Hong Kong Society for the Deaf	Cantonese speech recognition training kits for children with hearing impairment	1 300	868	<ul style="list-style-type: none"> • Arouse learning interest • Increase learning efficiency and effectiveness • Improve lazy tongue
“Learn smart” teaching material publishing platform Hong Kong Lutheran Social Service	Training kits and a publishing platform of teaching materials for students with cognitive impairment	6 300	2 567	<ul style="list-style-type: none"> • Facilitate sharing of training resources • Increase training efficiency • Enhance self-care skills and ability
Stories for Social Skills Made Easy SAHK	Social learning educational kits for children with autism	5 200	8 315	<ul style="list-style-type: none"> • Increase learning efficiency • Enhance learning effectiveness through the personalisation feature • Enhance parent-child relationship
Searching & Exploring with Speech Augmented Map Information (SESAMI) Hong Kong Blind Union	Speech augmented map information and indoor venue facility information to visually impaired persons	174 800	1 125	<ul style="list-style-type: none"> • HKICT Award winner • Lead a more independent life • Facilitate social inclusion
Barrier-Free Travel Guide Hong Kong Federation of Handicapped Youth	A barrier-free travel guide for persons with physical disabilities, detailing the accessibility facilities in tourist spots of Hong Kong	320 500	2 665	<ul style="list-style-type: none"> • Help the disabled to tour around the territory • Lead a more independent life • Facilitate social inclusion
eElderly Activity Search Hong Kong Society for the Aged	A platform for the elderly to search activities in over 190 local elderly centres	1.5 million	6 103	<ul style="list-style-type: none"> • Facilitate connection with the community • Helps spice up the life of the seniors
Hong Kong Easy Yang Memorial Methodist Social Service	Chinese learning platform for ethnic minorities to learn vocabularies and Cantonese pronunciation	195 000	2 156	<ul style="list-style-type: none"> • Facilitate communication and social inclusion • Promote racial harmony

Second Round of Digital Inclusion Mobile Apps in 2014-15

Mobile Apps	Function	Population of Relevant Needy Groups	Estimated Download in first 12 months
Articulation Screening and Training Tool Hong Kong Society for the Deaf	Assess and train phonological abilities of persons with hearing impairment	1 300	1 000
HOPE Chinese Character Game Hong Kong Young Women's Christian Association	Assist children with dyslexia in learning the structure of Chinese characters by decoding method	26 000	2 000
MathAid Ebenezer School and Home for the Visually Impaired	Reinforce the learning of core mathematical skills for students with visual impairment	1 300	500
One Click to Know Dementia Jockey Club Centre for Positive Ageing	Provide dementia patients with cognitive training and help seek emergency assistance when getting lost	103 400	10 000
SignChat Hong Kong Association of the Deaf	Maintain a library of sign languages for persons with hearing impairment to communicate in sign language through instant messaging applications	155 200	2 000

**Statutory and Public Sector Organisations
Adopting Web Accessibility**

1. Airport Authority Hong Kong
2. Chinese Medicine Council of Hong Kong
3. Chinese Temples Committee
4. Clothing Industry Training Authority
5. Committee on Professional Development of Teachers and Principals
6. Engineers Registration Board
7. Equal Opportunities Commission
8. Financial Services Development Council
9. Fish Marketing Organization
10. Hong Kong Applied Science and Technology Research Institute
11. Hong Kong Council on Smoking and Health
12. Hong Kong Cyberport Management Company Limited
13. Hong Kong Deposit Protection Board
14. Hong Kong Education City Limited
15. Hong Kong Examinations and Assessment Authority
16. Hong Kong Export Credit Insurance Corporation
17. Hong Kong Internet Registration Corporation Limited
18. Hong Kong Mortgage Corporation Limited
19. Hong Kong Note Printing Limited
20. Hong Kong Productivity Council
21. Hong Kong Science and Technology Parks Corporation
22. Hong Kong Tourism Board
23. Kowloon Canton Railway Corporation
24. Legal Aid Services Council
25. Legislative Council
26. Mandatory Provident Fund Schemes Authority
27. Minimum Wage Commission
28. MTR Corporation Limited
29. Occupation Deafness Compensation Board
30. Office of the Privacy Commissioner for Personal Data, Hong Kong
31. Planners Registration Board
32. Pneumoconiosis Compensation Fund Board
33. Quality Education Fund
34. Road Safety Council
35. Standard Working Hours Committee
36. Travel Industry Compensation Fund Management Board
37. Urban Renewal Authority
38. Vegetable Marketing Organization
39. West Kowloon Cultural District Authority

ICT Outreach Services for Institutionalised and “Hidden” Elderly in 2014

Implementation agencies	<ul style="list-style-type: none"> • Po Leung Kuk • Evangelical Lutheran Church Social Service – Hong Kong • Hong Kong Sheng Kung Hui Welfare Council Limited
Implementation period	March – December 2014
Geographical coverage	All 18 districts across the territory
Number of residential care homes visited	38 elderly homes
Number of institutionalised elderly engaged	Some 1 000 institutionalised elderly
Number of “hidden” elderly engaged	Some 110 hidden elderly
Key Activities	<ul style="list-style-type: none"> • Elderly/Youth volunteer recruitment and training • Visits to elderly homes and hidden elderly with volunteers <ul style="list-style-type: none"> – ICT awareness workshop – demonstration and trial use of tablet computers and mobile apps – home visits for one-on-one coaching on use of ICT – free access to on-loan mobile devices • Roadshows • Fun Days to demonstrate elderly digital product • Appreciation Ceremony • Surveys

**Advisory Committee
for the Smart Elderly Scheme**

Chairperson:

Deputy Government Chief Information Officer (Policy and Community)

Members:

Prof. Alfred CHAN Cheung-ming, BBS, JP Chairman, Elderly Commission

Dr Edith MOK KWAN Ngan-hing, MH Vice-Chairman, The Hong Kong Society
for Rehabilitation

Mrs Teresa TSIEN WONG Bik-kwan Director, Institute of Active Ageing,
The Hong Kong Polytechnic University

Chief Social Work Officer (Information Systems & Technology),
Social Welfare Department

Chief Systems Manager (Digital Inclusion), OGCIO

Secretary:

Senior Systems Manager (Digital Inclusion), OGCIO

Internet Learning Support Programme

1. Performance in 2014-15 as reported by Implementers
(1 April 2014 to 31 December 2014)

Service Items	Key Performance Indicator for Individual Implementer (April 2014 to March 2015)	Progress as at 31 December 2014		
		BGCA	Web-Organic	Total
(A) Key Performance Indicators (KPIs)				
1. Cumulative number of eligible families enrolled since launch	≥ 51 000	52 214	46 800	99 014
2. Number of eligible families newly enrolled in the period	≥ 7 000	6 364	6 755	13 119
3. Number of eligible families served in the period	≥ 9 000	5 109	8 069	13 178
4. Number of eligible families first served in the period	≥ 3 000	2 706	4 743	7 449
5. Total number of services provided to eligible families in the period	≥ 25 000	27 103	24 338	51 441
(B) Other Indicators				
6. Number of training services provided for eligible parents and students in the period	N.A.	8 107	8 428	16 535
7. Number of social support services rendered in the period	N.A.	5 745	4 997	10 742
8. Number of technical support services rendered in the period	N.A.	11 276	8 412	19 688
9. Number of computers sold in the period	N.A.	660	538	1 198
10. Number of Internet packages sold in the period	N.A.	1 262	1 936	3 198
11. Average cost per service ¹ in the period	N.A.	\$286	\$392	\$336

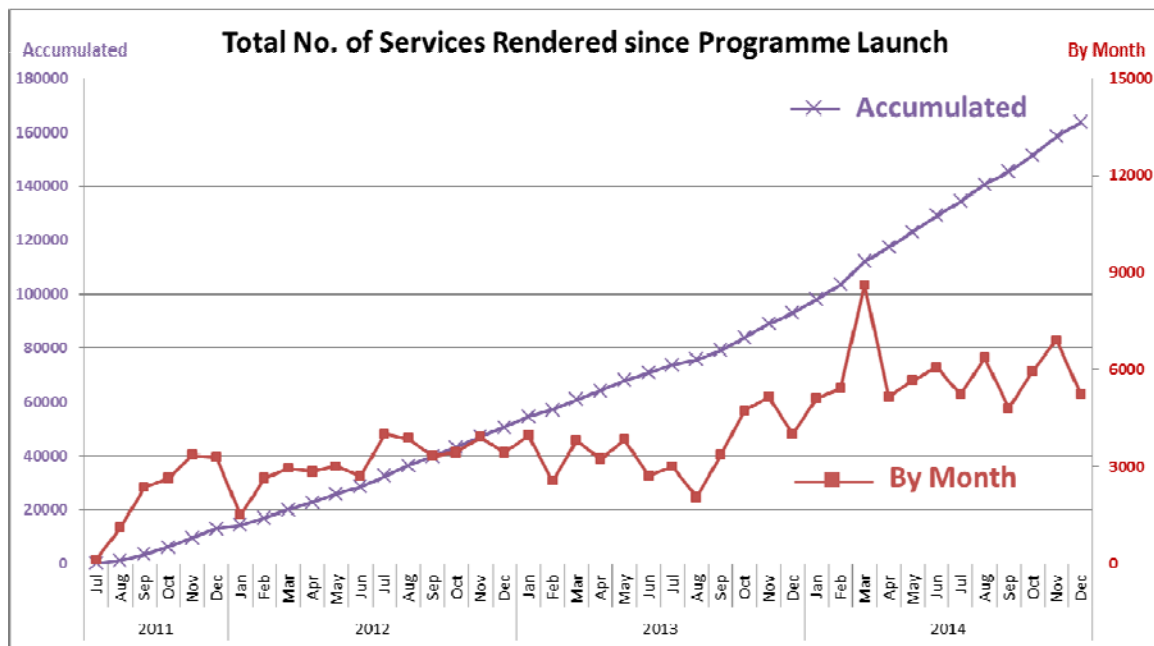
¹ The service cost is derived by dividing the total operating expenditures by the total number of services. The operating expenditures include any accounts payable and receivables but exclude the equipment cost and revenue generated directly from the sales of computer equipment and Internet packages.

**2. Performance since Programme Launch as reported by Implementers
(11 July 2011 to 31 December 2014)**

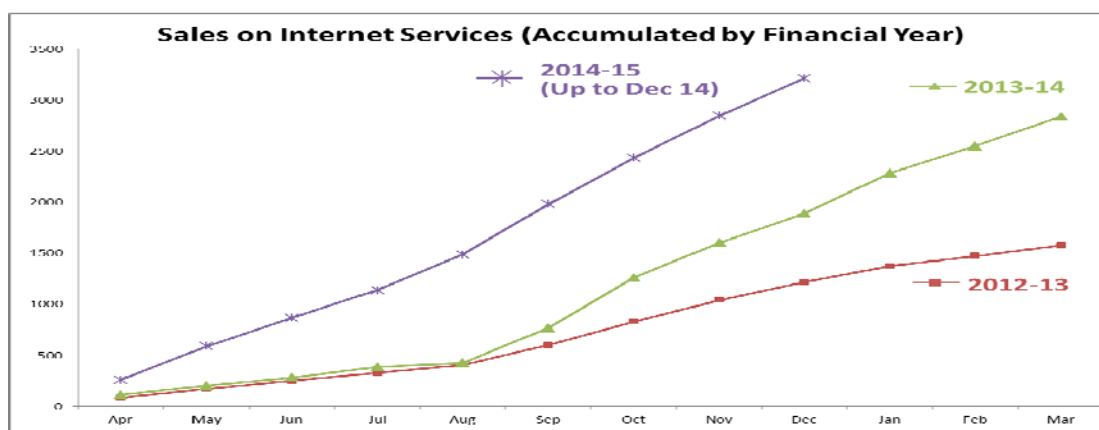
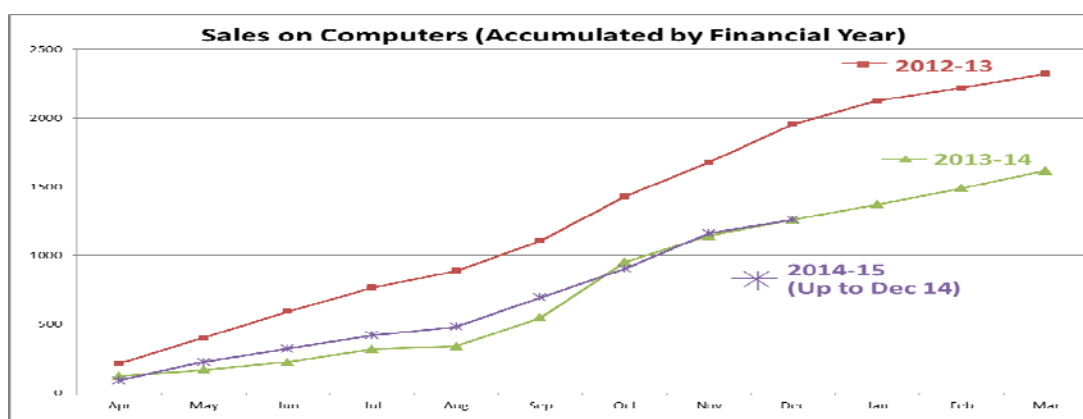
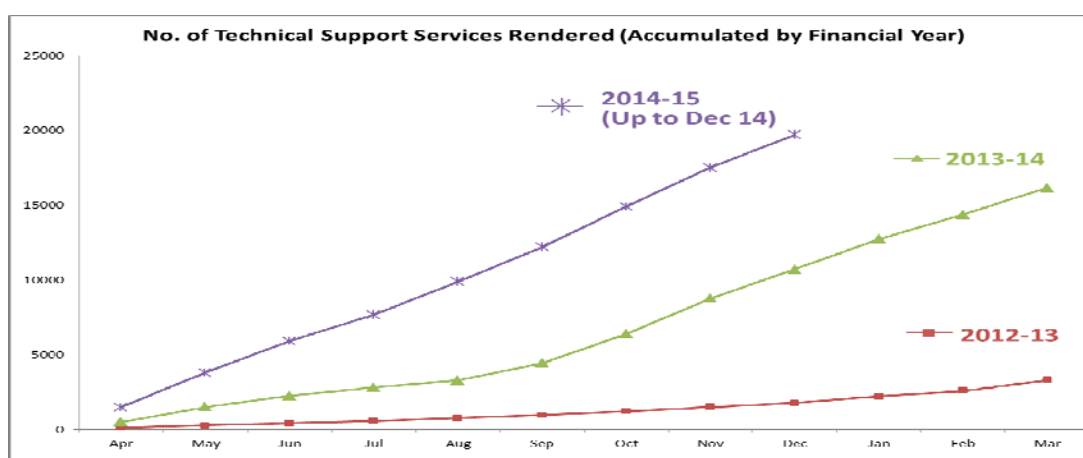
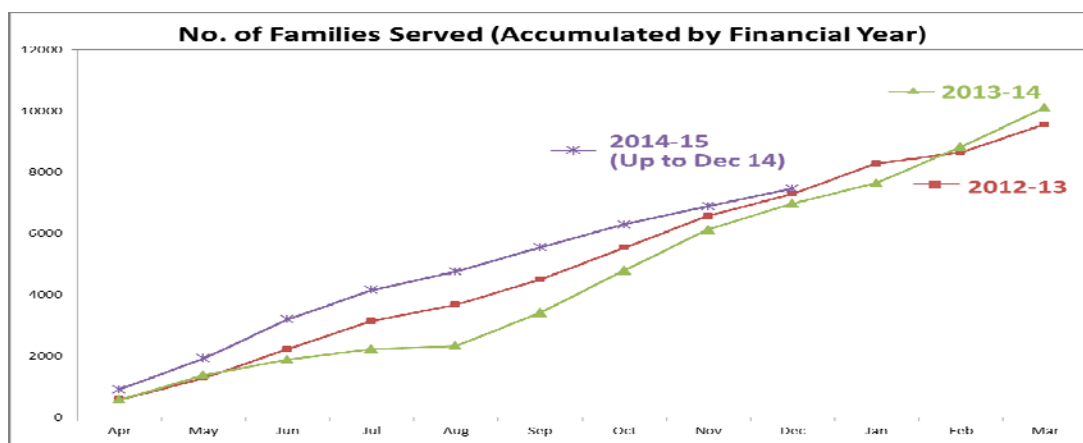
Service Items	Progress as at 31 December 2014		
	BGCA/ eInclusion	WebOrganic	Total
1. Number of eligible families enrolled	52 214	46 800	99 014
2. Number of eligible families served	17 306	17 383	34 689
3. Number of training services provided for eligible parents and students	35 929	28 903	64 832
4. Number of social support services rendered	23 888	15 117	39 005
5. Number of technical support services rendered	23 812	16 988	40 800
6. Number of computers sold	4 844	4 288	9 132
7. Number of Internet packages sold	3 190	6 263	9 453
8. Total number of services rendered	91 926	71 688	163 614
9. Net Operating Expenditures by Implementers (on cash basis)	\$44.1 million	\$43.1 million	\$87.2 million
10. Average cost per service ² since programme launch	\$495	\$645	\$561

² The service cost is derived by dividing the total operating expenditures by the total number of services. The operating expenditures include any accounts payable and receivables but exclude the equipment cost and revenue generated directly from the sales of computer equipment and Internet packages.

3. Trend of Total Service Take-up since Programme Launch (11 July 2011 to 31 December 2014)



4. Breakdown of Individual Services by Financial year



5. Amount of Doubtful Debts and Bad Debts (as at 31 December 2014)

Type	WebOrganic (HK\$'000)	BGCA (since 19.5.2013) (HK\$'000)	eInclusion (up to 18.5.2013) (HK\$'000)	Total (HK\$'000)
Total hire-Purchases	11,320	1,952	7,986	21,258
Doubtful Debts ³ (A)	80	2	261	343
Bad Debts ⁴ (B)	234	0	177	411
Total Doubtful and Bad Debts (A+B)	314 (2.8%)	2 (0.1%)	438 (5.5%)	754 (3.5%)

³ Doubtful debts refer to debts that are overdue for three months or more but not yet written off.

⁴ Bad debts refer to debts that are overdue for three months or more, and approved by the board and auditors for write-off due to debtors being unable to be found or having no intention to repay.