



Office of the Government Chief Information Officer  
20/F, West Wing, Central Government Offices  
2 Tim Mei Avenue,  
Tamar, Hong Kong

Digital21@ogcio.gov.hk

November 28, 2013

Re: Response to the Public Consultation on "2014 Digital 21 Strategy"

With the economic challenges that still persist in the global economy, governments around the world recognize that innovation and information technology (IT) are critical to unlocking new opportunities, increasing competitiveness and advancing national priorities. With Hong Kong already enjoying a leading position in global competitiveness and technology adoption, it is even more imperative to continue to reform the policy landscape to encourage further innovation and maintain its competitiveness. We believe that IT holds enormous potential to help Hong Kong achieve its goals, through a focus on empowering youth and developing talent, raising SME competitiveness and modernizing public services. In our view, the goal of developing a unique value proposition of a next generation city like Hong Kong is achieved by following these core principles:

1. **Encourage responsible leadership and promote respect of IP.** The public and private sectors can both play an important role in ensuring that business operate ethically, in an environmentally aware manner and with sensitivity to issues such as responsible sourcing, online privacy and safety, environmental sustainability and corporate governance. Operations that misappropriate IPR not only violate the rights of the IP owners, but they also gain an unfair competitive advantage over companies that abide by the law and pay for the technology they use. This also has adverse effect on the development of local economy and innovation. Government policies can encourage businesses to adopt principled approaches to conducting business and to uphold their public responsibilities;
2. **Promote choice and interoperability.** Users want the freedom to use whatever technologies and cloud computing services best meet their needs. Government policies should promote user choice by supporting industry-led efforts to increase interoperability among products from different online vendors and ensure that users have access to and control of their data and documents across various online products and cloud services;

3. **Ensure data security and privacy.** As cloud technology becoming more widely adopted, it is important for government and the private sector to ensure that data security and privacy is strictly observed. It is also imperative to ensure that citizen and government data is secure and privacy is respected and maintained. When subscribing to such service, government and citizens should demand contractual commitments in place that prohibit a cloud service provider from mining customer data, including citizen data for advertising or marketing purposes. This is especially important for services prescribed for students and children.
4. **Ensure neutrality on procurement and technology adoption.** When technology procurement and adoption policies are neutral, objective and merit-based, they help ensure that users have the widest possible choice among IT products and services and can better evaluate which products and services best meet their needs and offer the lowest total cost of ownership. The market, including government, is best served when their IT procurement is transparent and does not rule out or give preference to specific products or suppliers and does not mandate certain business, development or licensing models. Proper consideration of total cost of ownership should also be promoted within the government and in the private sector. We believe government should uphold these principles in all policies and directive. These values also echo the principles adopted by APEC as outlined in “APEC Project Procurement Principles”; and
5. **Promote the adoption of open standards.** Interoperability and compatibility is key to innovation and technology adoption. Standards are an important tool and one way to help facilitate interoperability. Government should support standards that are created by an open, collaborative process that is driven by the market and address the interoperability needs of users. Whenever possible, international standards should be promoted instead of developing local, proprietary standards.

With the above principles as foundation, we would like to highlight the following comments towards the “2014 Digital 21 Strategy – Smarter Hong Kong Smarter Living”, categorized according to the four-thrust strategy in the consultation paper.

#### **A. Empower Everyone**

**A.1. Strengthen public education and protection.** The increased use of online services has many benefits for consumers and businesses, but it can also lead to risk associated with privacy, security and safety. Users should be informed about their online privacy options through clear notices, be able to make choices about the use of their personal information, and be assured that their data will be protected. Government can meet these needs by collaborating to develop globally consistent policy frameworks that recognize the worldwide nature of data flows and at the same time, protect the privacy

and security of user data. Government should also raise public awareness and strengthening enforcement against cybercrime.

**A.2. Adopt new wireless connectivity technologies.** We are encouraged to see the Government taking lead to provide more WIFI hotspots and increase citywide connectivity to internet. Connectivity has become a critical need for citizen to participate fully in the digital economy and this need will continue to grow tremendously. To meet with this ever growing demand while resources are limited, we suggest the Government to continue exploring and adopting new and affordable wireless connectivity technologies like Dynamic Spectrum Access (DSA). It is clear that efficient use of spectrum is a critical aspect of solving the growing broadband challenge and in fact, Microsoft has spent many years investigating new technologies like TV White Space that can increase productive use of spectrum, through development of technology, trials and innovative solutions. We also work with industry to develop standards to facilitate the adoption of this technology and conduct pilot projects around the globe like Singapore, South Africa and UK.<sup>1</sup>

**A.3. Address digital inclusion in a concerted manner.** Underserved groups use technology in many ways to enrich their lives and raise their competitiveness. Over the years we have seen some success of the government led digital inclusion initiatives such as the Internet Learning Support Programme (ILSP). With the widening of poverty gap and aging population, we believe the underserved groups should be supported continuously in a concerted manner. Funding from different bureaus such as the OGCI, Efficiency Unit, Social Welfare Department, Home Affairs Department can be better coordinated so that these resources can be strategically placed to make a bigger impact in the community. We believe the Government would learn from its investment in projects like the ILSP and District Cyber-Center Scheme and fine-tune its operation and maximize its reach and effectiveness (e.g. if parental consent to release information to ILSP operator could be obtained at the beginning of school year, this could bring tremendous improvement on the operations).

**A.4. Improve education through greater use of technology.** IT can play a key role in transforming education and promoting lifelong learning. Cloud computing, in particular, can be instrumental in expanding the quality and accessibility of education – by enabling collaborative environments and anytime, anywhere access to learning resources and facilitating improvements in educational approaches through the collection and analysis of data. To encourage schools moving to cloud, government can develop guidelines and best practices for educators. Cloud-friendly funding mechanisms should also be developed so that schools can shift this expense from capital expenditure to operational

---

<sup>1</sup> Details can be found at <http://research.microsoft.com/en-us/projects/spectrum/default.aspx>

expenditure. In addition, government should also explore Game-based learning with motion sensor, augmented reality and other interactive learning experiences, which can help improve literacy, math skills and even physical fitness. With the rise of cloud computing and “Bring Your Own Device” programs, the Government should establish guideline and explore ways to help school leverage this opportunity and address the necessary support needs associated with it.

**A.5. Transform learning in and outside of the classroom.** In addition to upgrading technology infrastructure in schools, government should also invest resources into building a holistic eLearning strategy that addresses the various component of this paradigm shift. This should cover areas such as stakeholder readiness, content readiness and technology integration that is pedagogically proven.

**A.6. Develop an international class programming experience for students.** We are encouraged to see government promoting programming in formal education and believe that this could help raise the standard of Hong Kong’s talents pool. When structuring these courses, government should work with the industry to identify relevant content, such as those available today through the Microsoft IT Academy, which broadens student’s perspective and opportunity in the future. The Netherlands offers a good reference when it comes to territorial’ wide technology education including programming.

**A.7. Free and user-friendly digital ID.** As digital ID getting more and more important for e-commerce as well as e-services for citizens, we welcome the Government’s initiative to push for the wider adoption of digital ID. In addition to digital certificate, government should also support the development and use of other commercially viable options of digital ID services as well to offer users choice and encourage market competition.

## **B. Igniting Business Innovation**

**B.1. Encourage cross border R&D collaboration.** Continuous investment in research and development is crucial. Private sector can make significant contribution in this area through sharing their resources, experience and network, locally or across borders. By riding on the infrastructure and network of vendors such as the Microsoft Research Asia and Microsoft Venture initiative around the world, local researchers can gain experience, exposure and gather greater momentum to propel it into commercialization. The recent recognition of “I-MOVE to Learn”<sup>2</sup> at the World Summit Award is the living proof of partnership and continuous R&D.

**B.2. Stimulate innovation through IP protection.** A well-established IP protection environment is the corner stone of innovation. The government has implemented

---

<sup>2</sup> “I-MOVE to Learn”, developed by a local Microsoft partner, is a game-based application using Kinect for rehabilitation. This solution was honored as one of the “Global Champions” at the 2013 World Summit Award <http://www.wsis-award.org/winner/i-move-learn-107820130904>

different measures to ensure IPR protection is effective. To help foster local innovation and domestic economic growth, enforcing existing IP laws and updating them as necessary to adapt to new technologies is critical. By maintaining Hong Kong's reputation in IP protection, Hong Kong can further encourage local innovation and attract innovators from the surrounding regions, such as China, as well.

**B.3. Public Sector Information (PSI) for everyone.** We're encouraged to see government promoting PSI, including machine-readable dataset and API. With these cross departmental valuable datasets available on the public cloud, everyone can make smarter decisions based on data. Government should publish public data in a user-friendly platform which enables filtering, manipulating and synthesizing different formats and sources of data including structured, unstructured, real-time and archived data in a highly visualized and interactive way. When choosing services, government should ensure enterprise-class security and data governance is well covered. We recommend government to devise a long term cloud strategy to encourage public-private partnership and nurture a developer ecosystem for open data innovation, while protecting individual privacy. When working across different bureaus, the OGCIO should also take the lead in defining the scope of data to be made public, data format such as XML, connection with the developer community and the timeframe of data readiness, from different bureaus. When prioritizing data availability, information such as map images and census statistics should rank high on the list.

**B.4. Promote the adoption of cloud in SME.** A recent study by Boston Consulting Group<sup>3</sup> has highlighted that technological advancement, such as cloud services, brings potential for the most far-reaching innovation and business growth ever, creating an opportunity for SMEs to achieve growth. To support SME moving towards this direction, government can raise public awareness and offer incentives such as subsidy or tax deduction. When funding SME projects, Government should also incorporate cloud-friendly funding mechanism that encourage SME to subscribe technology as a service over making capital investment in-house.

## **C. Supporting A Thriving ICT Industry**

**C.1. Build up a comprehensive portal for startups.** ICT startups are crucial to the long term success of Hong Kong. To nurture this community, government should consider leveraging the various resources, public and private. Over the past few years, Microsoft

---

<sup>3</sup> "Ahead of the Curve: Lessons on Technology and Growth From Small Business Leaders" by Boston Consulting Group  
[https://www.bcgperspectives.com/content/articles/technology\\_software\\_globalization\\_ahead\\_curve\\_lessons\\_tech\\_nology\\_growth\\_small\\_business\\_leaders/](https://www.bcgperspectives.com/content/articles/technology_software_globalization_ahead_curve_lessons_tech_nology_growth_small_business_leaders/)

has been investing in supporting the startup community through its Accelerator Program and BizSpark resources pack, international competitions and other programs to raise entrepreneurship skills, especially in the higher education space. The online portal to be developed by the government should cover not only the resources and support from government, but also embracing the contribution from private sector. By incorporating the investment in private sector, Hong Kong can collaboratively attract venture investment, build up innovative entrepreneurs and startups.

**C.2. Support for startups and ventures.** To encourage innovation, government should consider offering incentives such as tax deduction for investments going into startups. This would attract more private funding hence fueling more startup projects. Efforts to encourage IP filing, exchange and trading can also help the further development of innovation.

**C.3. Promote a cloud friendly regulatory framework.** The growth of cloud computing offers tremendous opportunities but also presents new challenges. Governments can promote widespread adoption of cloud computing by 1) providing clearer guidelines that adhered to international standards 2) fostering user confidence, especially in the areas of privacy, security and compliance cost; 3) providing SME with subsidies for moving to cloud. Regulators also need to recognize the worldwide nature of data flows, at the same time, protect the privacy and security of user data.

#### **D. Transforming and Integrating Public Services**

**D.1. Modernize Government.** IT and the internet can facilitate greater citizen participation in government and the political process, as well as improve how government employees collaborate. Modern tools and infrastructure can help citizens, government agencies, policymakers, and government workers connect with each other and to information that can lead to better decision making, improved services and greater efficiency, accountability, and transparency. Improved access to government data can also create new jobs and business opportunities. Cloud computing offers economical and measurable ways to improve government performance with significant savings<sup>4</sup>. To propel towards this direction, the Government should establish specific guidelines on cloud readiness and adoption goals for difference agencies as well as conduct regular internal education and reviews.

**D2. Setting up Technology and Communication Bureau.** We're encouraged to see Hong Kong ranked high on competitiveness in various international benchmark studies. We are particularly thrill that ICT is one of the key factors that contributed to this ranking. To

---

<sup>4</sup> "Implementation of a Government Cloud Platform" at <http://www.legco.gov.hk/yr11-12/english/fc/fc/papers/f12-39e.pdf>

remain on the top, we strongly suggest government to consider setting up Technology and Communication Bureau. This bureau can play a key role in rolling out government wide internal projects and go beyond directives and raise efficiency and interoperability. Externally, the bureau can also coordinate the holistic development of ICT industry to support the further development of Hong Kong in a concerted manner.

In general, to ensure the direction and initiatives outlined in the “2014 Digital 21 Strategy” are carried out and adjusted as necessary, it would be helpful to attach measurable and time bound goals for all strategies to be rolled out. In addition, setting up working groups for key initiatives, composed of industry players can also help review and fine tune as necessary, making it more adaptive to the changing nature of technology. Microsoft welcomes the opportunity to work with government agencies and industry leaders around the world, including Hong Kong, to achieve economic growth and address social challenges. We believe we are an effective partner because our business model puts people first – our customers, our partners and our communities – and views economic growth as a means of improving people’s lives. According to an independent IDC Economic Impact Study<sup>5</sup>, our partner ecosystem generates 53,000 jobs, accounting for 42% of local IT employment, and drives more than HK\$40 billion in local investment. Every \$1 of Microsoft revenue translates into around \$11 in revenue for partners. And these partners are supporting the needs of 34,000 SMBs, 200 startups, 1,000 schools and 360 NGO. Based on our strength and Hong Kong’s unique situation, we have developed a “Real Impact for Hong Kong” framework that covers initiatives to empower youth, fuel innovation, modernize public services and address societal challenges. We are very encouraged to see the close alignments of our framework with the “2014 Digital 21 Strategy”. And we certainly look forward to working closely with OGCIO and other bureaus to make these changes real for Hong Kong.

Should you have any questions regarding our submission, please contact Corporate Affairs Director, Ms. Mei Mei Ng at [meimei.ng@microsoft.com](mailto:meimei.ng@microsoft.com) or telephone 2804 4134.

Kind regards

*Horace Chow*

General Manager

Microsoft Hong Kong Limited

---

<sup>5</sup> “Aid to Recovery: The Economic Impact of IT, Software, and the Microsoft Ecosystem on The Economy” by International Data Corporation (IDC)