# MESSAGE

The dot.com fever was a global phenomenon. Following the bursting of the dot.com bubble, e-business has entered into a stage of consolidation. The development trend of e-business is quite irreversible, and has already fundamentally changed our way of life and business operation. We can now obtain a wide range of information and services at our finger tips through the Internet. The development of online technologies has enabled businesses to expand their markets beyond geographical and time barriers, provide user-friendly and value-added services to their clients and streamline supply chains to enhance efficiency and productivity. All these enrich our lives and will drive future economic growth in the Information Age.

Hong Kong is an early adopter and mature user of IT. Today, eight persons out of ten have a mobile phone or device. Six households out of ten have a PC and with choice of affordable broadband Internet service. We are an Internet-savvy community ready to exploit the advanced information infrastructure which can support the development of various types of e-business applications.

To develop our leadership in e-business exploitation, Hong Kong needs a comprehensive strategy which is visionary, focused and flexible, with clearly structured targets and timetable for implementation. Having liberalised the telecommunications market, enacted the Electronic Transactions Ordinance, established a local public key infrastructure, and launched the Electronic Service Delivery (ESD) Scheme to provide government services online, we promulgated our revised Digital 21 Strategy in May this year. The theme is "Hong Kong : Connecting the World" with five Key Result Areas –

    (a)   to enhance our world-class e-business environment;

    (b)   to ensure that the Government leads by example;

(c)  to develop our workforce for the information economy;

(d)  to strengthen our community for digital exploitation; and

(e)  to leverage our strengths in exploitation of enabling technologies.

We will work together with the private sector and the community to drive the strategy.

The Cyberport project at Telegraph Bay in the Southern District is on-schedule for completion between early 2002 and end-2003. The present construction site will soon turn into new intelligent offices in a low-density, campus-like environment, supported by a world-class telecommunications infrastructure and a range of sophisticated high-tech facilities. The Cyberport will also include a variety of interesting technology-themed retail, educational and entertainment services. The development will accommodate about 150 companies of varying sizes and at different stages of development, ranging from multinational corporations to medium- and small-sized companies.

We earnestly look forward to the first intake of tenants at this IT flagship early next year and will work with them together to build up a new international IT centre here at the Cyberport. Together with the industry, academia, professional organisations, and other community groups, we hope to deliver our commitments under the 2001 Digital 21 Strategy early to drive Hong Kong as a leading digital city in the globally connected world.

( Mrs Carrie Yau )
Secretary for Information Technology
and Broadcasting

# Information Technology

## Policy Objective
## and
## Key Result Areas

# INFORMATION TECHNOLOGY

Our Policy Objective is to position Hong Kong as a leading e-business community and digital city in the globally connected world of the 21st century.

## Overall Targets

Our targets this year in pursuing this Policy Objective are –

- to update the legislative framework for the conduct of electronic transactions to ensure that it meets the needs of e-business

- to enhance the information infrastructure for secure electronic transactions between Government, businesses and individuals

- to vigorously pursue a comprehensive strategy for developing E-government with a view to improving efficiency and quality in the provision of public services and driving the adoption of IT among businesses and individuals

- to enchance the supply of quality IT manpower

- to raise IT awareness in the community to support the development of a knowledge-based economy

- to achieve a high IT take-up rate among businesses and households

- to foster a cultural environment that stimulates creativity and welcomes advances in the use of IT

- to facilitate the exploitation of new technologies and their application

## Progress

In the past year, we continued to make significant progress in implementing various plans and initiatives which help realise our vision to become a leading digital city as set out in the Digital 21 Strategy published

in November 1998. We launched the Electronic Service Delivery (ESD) Scheme in December 2000 to provide a wide range of public services online to the community. We have also been implementing various programmes and initiatives to make greater use of IT in government internal operations, with a view to increasing operational efficiency and making progress towards paperless office and communication.

Public awareness, as well as knowledge and interest, about IT have substantially increased. Today, 60% of our households have computers, and the number of registered Internet accounts has exceeded 2.6 million. The business sector has also started to adopt online operations. Of all our business establishments, half have computers and more than one-third have Internet connections. We have also continued to promote the wider use of IT both within the Government and in the community so as to make Hong Kong a leading digital city in the globally connected world.

Building on our earlier success in establishing the foundation for the exploitation of IT, we have updated our Digital 21 Strategy to keep pace with the ever-changing technological landscape and social changes. The 2001 Digital 21 Strategy promulgated in May this year sets new directions and innovative initiatives to drive our future IT developments in the coming years.

To better reflect our work, we shall re-group our new initiatives into five Key Result Areas (KRAs).

We also achieved the following progress in our three KRAs under the old structure.

## 1 Develop our IT infrastructure and set standards

In the past year, we have made significant progress in taking the lead in the use of IT, both in providing public services online to the community and in internal operations. In December 2000, we launched the ESD Scheme to provide efficient and quality public services to the community online. More than 100 types of services of over 30 government departments and public agencies are now delivered 24 hours a day and seven days a week to the community. These services can be conveniently accessed through various delivery channels, including personal computers with Internet connection, public computer facilities installed in post offices, public libraries,

community centres and non-governmental organisations (NGOs), and smartly-designed kiosks installed in MTR/KCR stations, shopping malls, supermarkets, government offices, as well as cultural and exhibition centres. So far, the ESD website has recorded over 16 million visitors and generated over 880 000 transactions. Services are provided through a customer-oriented instead of the conventional department-based approach. Establishing an open and common information infrastructure for the provision of both public sector and commercial services, the ESD Scheme will act as a catalyst to pump-prime the development of e-business in Hong Kong. The ESD operator has rolled out value-added commercial services to the public through the ESD infrastructure. Due to its innovation, the ESD website recently won the 2001 Stockholm Challenge Award in Sweden. We will continue to introduce new public services under the ESD Scheme in 2001, such as booking of marriage dates, purchase of government publications, booking of sports and leisure facilities, registration to sit for public examinations, etc. so as to provide more government services online.

There are now 93 000 computers within the Government for use by our officers. We have successfully implemented major initiatives to promote paperless operation within the Government. All bureaux and departments are now connected to a stable, reliable and resilient broadband government communication network. Through the Government Office Automation Extension Programme, we shall increase the facilities to cover an additional 15 000 officers by mid-2003. This will more than double the number of officers linked to this government-wide network, providing access to information and facilitating transactions through electronic means. We have also implemented various projects to enhance government IT infrastructure to cope with the greater adoption of IT within the Government. These efforts, together with the implementation of a system for the exchange of internal confidential mail, and the adoption of Software Asset Management and updated information security management practices, help build a solid and comprehensive information infrastructure for the wider adoption of electronic communication and transactions within the Government. We have already launched systems for electronic leave application and processing, submission of funding applications for computerisation projects and preparation of the annual estimates, either on a pilot or phased basis. The increased electronic

inter-departmental and intra-departmental transactions, which drive internal government businesses to be conducted online, will reduce processing time and eventually improve responsiveness in the delivery of public services.

With the legislative framework laid down in the Electronic Transactions Ordinance and the establishment of the local public key infrastructure, the Government has taken the lead to accept electronic submissions from the public under the bulk of the legislation in Hong Kong. Some 200 common electronic forms can now be filled in electronically and submitted to the Government via the Internet for obtaining various types of public services.

To facilitate cross-border electronic transactions, the Hongkong Post Certification Authority (HKPCA) has continued with its efforts to establish cross certification and other co-operative arrangements with certification authorities operating in other places. In the past year, the HKPCA signed Memoranda of Understanding (MOU) on co-operation with the Korea Information Certificate Authority and the Shanghai Electronic Certificate Authority. This paves the way for us to explore cross recognition of digital certificates with these places. In addition, the HKPCA has signed an MOU with the Shanghai Electronic Certificate Authority for the establishment of the first Chinese Certification Authority System in Hong Kong. This will drive the development of future Chinese-based e-business applications between the Mainland and Hong Kong. Furthermore, the HKPCA has participated in various regional fora to enhance co-operation in public key infrastructure development and applications, with a view to promoting cross-border e-business in Asia.

In the past year, we also witnessed the introduction of various e-business services using the public key infrastructure established by the HKPCA. These include the ESD Scheme, online stock trading services, Internet banking services as well as online betting services.

We have implemented new registration policies in respect of Internet domain names ending with ".hk" since June this year. A company can now register more than one domain name and can transfer its domain name. We have also put in place an alternative dispute resolution mechanism to help settle dispute cases on domain names quickly and at a low cost through arbitration. A preparatory committee has also been formed to prepare for the establishment of

the Hong Kong Internet Registration Corporation, which is a non-profit making company responsible for administering Internet domain names ending with ".hk". We have also set up a Working Group on Internet2 in July 2001 to facilitate the development of new generation of Internet technologies in Hong Kong.

Under the aegis of the Hong Kong/Guangdong Co-operation Joint Conference, we have jointly set up with the Government of the Guangdong Province a task force on e-business co-operation in August this year to drive e-business development in both places.

As regards international co-operation, we have established co-operative arrangements on IT with six economies, namely, Canada, Australia, United Kingdom, Finland, India and Israel. We have been working closely with these partner economies to foster exchanges and co-operation in the IT field. We will continue to work closely with these economies under the auspices of the co-operative arrangements to encourage and support partnership, investment co-operation, commercial ventures, research and development in the areas of IT and advanced communication technology. We will also explore with other places which are advanced in the use of IT whether similar co-operation arrangements can be made.

The Cyberport project is progressing to completion, in three phases, between early 2002 and end-2003. This will provide about 110 000m$^2$ of world-class office space to accommodate about 150 companies in a campus-like environment. A state-of-the-art telecommunications infrastructure comprising an optical fiber network and a wireless local network is being built for the Cyberport. This will also provide the backbone for integration with a range of sophisticated high-tech facilities for shared use by the tenants. We are also building a specially designed cybercentre to provide combined media and technology-focused entertainment and retail services. Many companies – local, overseas and multinational – have expressed interest in becoming Cyberport tenants. We have started the selection of tenants process, acting on the advice of a committee comprising local, overseas and industry members. Companies will move into the Cyberport starting from early 2002 and bring with them professionals from all parts of the world. Benefits from this clustering of like-minded companies and professionals will flow through to the whole community.

## 2 Foster the development of the IT industry locally

We have been facilitating the commercialisation of research results on leading edge technology through fostering a closer collaboration between the academia and the local IT industry. We shall continue to work closely with the Innovation and Technology Commission in identifying IT projects worthy of government support under the Innovation and Technology Fund so as to drive IT development in Hong Kong.

We set up in November last year a Task Force on IT Manpower to examine IT manpower shortage in Hong Kong and recommend suitable measures to address the issue. The Task Force completed its work and published a report in this year. The report has recommended a comprehensive package of immediate and longer term measures to enhance the supply of quality IT manpower in Hong Kong. We will strive to put these measures in place to ensure that we have sufficient quality IT manpower to sustain our future economic development.

We have achieved our target of outsourcing two-thirds of new government IT projects. Indeed we are now outsourcing 90% of these projects. We have also started outsourcing IT application maintenance activities in various departments. We shall continue to vigorously pursue the outsourcing strategy to benefit the local IT industry and to speed up the implementation of government IT projects.

## 3 Promote and facilitate the use of new and emerging information technologies within the community

We launched the "IT Hong Kong (ITHK)" campaign in September last year to promote the wider use of IT in the community. The campaign comprises a series of activities including organising free IT awareness courses, recruitment of IT pioneers, launching of a dedicated "ITHK" website, and other territory-wide and district IT promotional activities.

We will continue with the campaign to enhance the capability of the community for digital exploitation and to avoid the emergence of digital divide.

We have completed the second benchmarking survey on IT usage, which covers computer and Internet penetration in households as well

as in the business sector. We will conduct the survey annually so as to assess the overall progress in the IT development of Hong Kong.

We have taken part in various local and overseas exhibitions and conferences to promote the wider use of IT in the community and to publicise our IT initiatives overseas, thereby strengthening our position in the IT world.

As regards small and medium enterprises (SMEs), we have, in collaboration with industry support organisations, held a series of seminars, targeting at SMEs, to promote the adoption of e-business in various sectors. To provide information services to SMEs to drive their e-business adoption, we have also published useful reference material in our Digital 21 website. CD-ROM on successful cases of e-business adoption have also been produced for distribution to SMEs.

To widen public access to IT facilities and services, we have expanded the Community Cyber Points project, under which computer facilities with Internet connection have been installed in District Offices and community halls/centres for use by those who do not have their own facilities. Additional computer facilities have been installed in more community halls/centres and post offices as well as NGOs. We have also installed computer facilities with special devices in selected locations to cater for the needs of the blind and the visually impaired.

Progress on each previously announced initiative under the above KRAs is set out in the "Detailed Progress" section of this report.

## Looking Forward

To achieve our overall targets this year, we will undertake the following initiatives and targets under each of the KRAs for the coming year under the revised KRA structure :

- Enhance our world-class e-business environment

- Ensure that the Government leads by example

- Develop our workforce for the information economy

- Strengthen our community for digital exploitation

- Leverage our strengths in exploitation of enabling technologies

# 1  **Enhance our world-class e-business environment**

E-business is a key enabler to transform conventional businesses and will be a strong driver in future business operations. Hong Kong has made important progress in establishing a conducive environment for e-business to develop. Achieving this Key Result Area will place Hong Kong firmly on the e-business global map and help attract international investment.

The Digital 21 strategy represents Hong Kong's overall strategy for achieving leadership in the information economy. We will develop a marketing strategy for enhancing public and international awareness of Hong Kong's image as a leading digital city, an e-business-friendly economy, and a hub for exploiting technologies.

We have successfully developed the necessary infrastructure for conducting e-business. This includes our telecommunications network, legislative framework, public key infrastructure and certification authorities, Chinese language interface, and the development of the Cyberport and Science Park, etc. We will continue to enhance our e-business infrastructure by building on these successes and by encouraging the development of e-business applications that promote the use of such infrastructure. In addition, we will continue to actively address data privacy and information security issues which are crucial for e-business to flourish.

We will continue to encourage the adoption of e-business in the private sector to enhance our competitiveness in the information economy. We will organise awareness seminars, and exhibitions and other activities targeting businesses on a sector specific basis. We will also actively promote the use of IT applications in small and medium enterprises, which are the backbone of our economy.

With the imminence of China's accession to the World Trade Organisation, we will leverage our special relationship with the Mainland and our knowledge and expertise in the operation of the Mainland market and stand ready to explore new opportunities which will arise with the opening up of the Mainland market, especially in the IT and telecommunications fields. Apart from reinforcing our traditional gateway role, we can also become the leading regional and international hub for the

Mainland, as well as providing crucial financial, management and logistics support.

Upon the phased completion of the Cyberport between early 2002 and end-2003, a strategic cluster of IT and IT-related companies, ranging from multinational corporations to smaller-sized local and overseas companies, will be formed at the Cyberport. Admission of these companies will be based on their ability to develop new technologies, applications, services and content in many different fields. The Cyberport will greatly spur the development of IT and related business in Hong Kong.

We will assess our performance in respect of this KRA against the following indicators –

- The awareness of the Digital 21 Strategy both in the local and international communities.

- The development of information infrastructure, both hardware and software, to facilitate e-business development.

- The awareness and adoption of e-business in the private sector.

- The collaboration with the Mainland, in particular on cross-border e-business.

We will pursue the following initiatives and targets to deliver results in this area –

| Initiative * | Target |
|---|---|
| To promote the Digital 21 Strategy so as to enhance Hong Kong's position as a leading digital city in the globally connected world<br><br>*(Information Technology and Broadcasting Bureau (ITBB)/ Information Technology Services Department (ITSD))* | To implement an on-going publicity programme from end-2001 to promote the Digital 21 Strategy overseas so as to enhance Hong Kong's position as a leading digital city in the globally connected world |

* the bracketed information denotes the agency with lead responsibility for the initiative

| Initiative | Target |
|---|---|
| To promote the development of Chinese Internet domain name registration in Hong Kong<br><br>*(ITBB/ITSD)* | To encourage and facilitate the introduction of the registration of Chinese Internet domain name in Hong Kong in 2002 |
| To review the Electronic Transactions Ordinance<br><br>*(ITBB/ITSD)* | To conduct the review in 2001 and, where necessary, introduce a bill to amend the legislation in 2002 |
| To promote the adoption of e-business in the private sector<br><br>*(ITBB/ITSD)* | To implement sector-specific promotional programmes starting from end-2001/early 2002 to encourage the adoption of e-business in the private sector, targeting especially SMEs |
| To enhance the accessibility of government websites to Chinese communities outside Hong Kong so as to help facilitate cross-border e-business with these communities<br><br>*(ITBB/Information Services Department/ITSD)* | To develop a simplified character version for government websites in 2002 to enhance their accessibility to Chinese communities outside Hong Kong, in particular the people in Mainland, thus helping to facilitate the development of e-business with these communities |

# 2     **Ensure that the Government leads by example**

The Government is committed to leading by example in the use of e-business, both in conducting internal business operations and in delivering public services to the businesses and the community on an "anywhere and anytime" basis. The use of e-business solutions allows us to modernise government operations and improve efficiency. We can also improve the quality of providing services to the community. We can move away from the conventional approach of service delivery by breaking down bureaucracy between departments to facilitate the provision of more customer-oriented, value-added and user-friendly one-stop government services. Moreover, by taking the lead in the use of e-business, the Government drives the wider adoption of IT in the community.

With our strong commitment to lead by example in the use of IT, we have promulgated a comprehensive strategy to build E-government in the context of the 2001 Digital 21 Strategy. We have set a target for providing e-option (the option to obtain the service through electronic means) for 90% of the public services which are amenable to the electronic mode of service delivery by end-2003. At present, 65% of such services already have an e-option. We will also actively promote and encourage the community to utilise the e-options available.

We will proceed with flagship E-government projects which will bring significant benefits to both the Government and the community. These flagship projects fall into the following four categories –

**Government-to-Citizen (G2C):** providing convenient and user-friendly public services online to individual citizens can significantly improve our service level and enable us to better serve the community. It will also enhance public confidence in conducting electronic transactions and promote the wider adoption of IT in the community. We will continue to introduce more G2C services online. We will further implement the Electronic Service Delivery (ESD) Scheme by rolling out additional online services and introducing additional service delivery channels.

**Government-to-Business (G2B):** transacting with our business partners online can improve efficiency and reduce the compliance costs of the business sector. It will also facilitate innovation and investment and help promote Hong Kong as the world's premier business city. We will actively implement and drive e-procurement initiatives. We have already introduced an Electronic Tendering System to issue tenders and receive bids through the Internet. We will develop an electronic marketplace for lower value procurement which is currently conducted through quotations or direct purchases.

**Government-to-Employee (G2E):** the Government as an employer using electronic means in communication and transactions with its employees will reduce administrative costs and foster an E-government culture within the civil service. We will continue to roll out the system for electronic leave application and processing and other G2E applications.

**Government-to-Government (G2G):** using electronic means in communication and transactions among bureaux and departments will enhance internal efficiency and optimise the use of limited resources. Streamlining and re-engineering the existing business processes will maximise the efficiency gain. We will continue to conduct internal operations electronically and ensure that the business processes are re-engineered to achieve maximum gains in efficiency and effectiveness.

To develop an efficient and effective E-government, we need to strengthen our internal IT infrastructure. This includes providing higher bandwidth connection within and amongst departments, secure electronic mail networks, and wider access to IT facilities for the civil service. Moreover, we will enhance the skills of the management and staff at all levels through awareness and training programmes.

We will assess our performance in respect of this KRA against the following indicators –

- The percentage of public services amenable to the electronic mode of delivery that are provided with e-option. Our target is to achieve a level of 90% by end-2003.

- The continued development and enhancement of the ESD Scheme and other online public services.

- The development of e-procurement initiatives.

- The provision of more IT facilities and G2E applications to civil servants.

We will pursue the following initiatives and targets to deliver results in this area –

| Initiative | Target |
|---|---|
| To introduce new medium for delivery of public services online under the ESD Scheme<br><br>*(Information Technology and Broadcasting Bureau (ITBB)/ Information Technology Services Department (ITSD))* | To provide ESD services through the mobile medium in 2002 in addition to personal computers and public kiosks |
| To facilitate the community in obtaining  public services electronically<br><br>*(ITBB/ITSD)* | To provide e-option for 90% of public services which are amenable to the electronic mode of delivery by end-2003 |
| To drive e-procurement within the Government<br><br>*(ITBB/Government Supplies Department/ ITSD)* | To commence in 2002 the development of an electronic marketplace for carrying out e-procurement of lower value purchases for various departments |
| To use IT to provide a new channel for the Government to communicate interactively with the community<br><br>*(ITBB/Information Services Department (ISD)/ ITSD)* | To launch in 2002 an online news bulletin to put out government news, interviews and information through multi-media and to communicate interactively with the community in an innovative manner |

| Initiative | Target |
|---|---|
| To revamp the Government Information Centre (GIC) website for development into a one-stop Hong Kong Special Administrative Region Government online portal<br><br>*(ITBB/ISD/ITSD/Management Services Agency)* | To revamp the GIC website in 2002 to provide user-friendly access to government information and services |
| To provide IT facilities to civil servants and drive G2E and G2G applications<br><br>*(ITBB/ITSD)* | To implement an accessibility programme to provide IT facilities to civil servants from 2002 to facilitate access to information and G2E/G2G applications |

# 3    Develop our workforce for the information economy

The rapidly growing world-wide competition for skilled IT manpower and the demand for these skills locally is a critical issue for Hong Kong to address. This Key Result Area (KRA) will help meet the demand of Hong Kong as a digital city for skilled IT professionals in order to sustain our future economic development.

The Task Force on IT Manpower has analysed the IT manpower demand and supply situation in Hong Kong, and has recommended a package of immediate and longer term measures to address the situation. These measures are –

- implement the scheme to admit Mainland IT professionals;

- streamline the admission regime for overseas IT professionals;

- expand post-secondary programme;

- encourage world-renowned private IT training institutions to operate in Hong Kong;

- implement an academic plan in the Cyberport to develop professional IT talent;

- accredit IT skills below degree level;

- encourage Hong Kong and Mainland talent overseas to work here;

- intensify exchange/internship programme with emphasis on IT and improve the standard of English through immersion;

- collaborate with the industry to provide professional IT training for secondary students;

- enhance output of university graduates in IT and related disciplines and increase IT content in both IT and non-IT disciplines;

- promote and accept credit transfer/exemption in universities for IT-related disciplines;

- set up corporate schools in IT field in collaboration with the industry; and

- explore the feasibility of establishing a community IT college.

We will work together with the educational institutions, industry support bodies, the IT industry, employers and the community to put these measures in place. With our concerted efforts, we will build our IT workforce for the information economy.

We will assess our performance in respect of this KRA against the following indicators –

- The supply of IT manpower in meeting the demand in the community.

- The number of secondary students who have received professional IT training organised in collaboration with IT companies.

- The number of students who have participated in student exchange/internship programme.

We will pursue the following initiatives and targets to deliver results in this area –

| Initiative | Target |
|---|---|
| To provide professional IT training for secondary students<br><br>*(Information Technology Services Department/Education Department)* | To collaborate in 2002 with world-renowned IT companies to provide professional IT training to secondary students |
| To organise exchange/internship programmes focusing on IT for local students and IT-related employees to enhance their exposure and international outlook<br><br>*(Information Technology and Broadcasting Bureau (ITBB))* | To work together with local bodies and universities as well as overseas renowned IT companies and prestigious universities to launch a pilot exchange/internship programme focusing on IT in 2002 for local students and IT-related employees |

| Initiative | Target |
|---|---|
| To encourage overseas Hong Kong students and professionals in IT field to return to work in Hong Kong<br><br>*(ITBB)* | To implement a structured programme starting from end-2001 to attract overseas Hong Kong students and professionals in IT field to return to work in Hong Kong, thus strengthening IT manpower supply |

# 4 | Strengthen our community for digital exploitation

Digital divide is often described as the gap between people who are able to participate in and benefit from the information economy and those who cannot. As technology gives rise to new products and applications, greater convenience and better services, the need for the community at large to have the knowledge of and access to the use of IT increases. We will foster the community to embrace and use IT and will specifically target people who have less opportunities to access IT facilities in their daily lives, e.g. senior citizens, housewives, people with disabilities, etc. Achieving this Key Result Area will ensure that the entire community will benefit from the developments of IT in enhancing our quality of life.

The Government has implemented a series of activities ranging from the establishment of Community Cyber Points to the launching of IT appreciation programme to raise the awareness, confidence, and familiarity of the community in the use of IT in all spheres of their lives, especially towards life-long learning and knowledge renewal. We have significantly improved the accessibility to IT facilities and the Internet by providing public computer facilities in community centres/halls, public libraries, district offices, post offices, non-governmental organisations, etc. and funding the purchase of computer facilities in schools. All schools are now linked to the Internet. We will continue to expand the Community Cyber Point programme. We will also focus on educating the community in the use of IT.

We launched the "IT Hong Kong" campaign in September 2000 to promote the wider adoption of IT in the community. It comprises a series of promotional activities, including a territory-wide IT awareness programme. We have also launched an "IT Hong Kong" website (www.ithk.gov.hk) which serves as a forum for disseminating information to the public on IT and related activities. We will continue with these promotional efforts. We will also conduct surveys annually to assess the level of the use of IT in the community.

Websites and electronically available content should be made accessible to all groups of people in the community including those with disabilities. Having regard to international standards, we have developed

in collaboration with the industry and disabled groups a set of accessibility guidelines for best practice in web development and electronic transactions. These accessibility standards will be enforced in all government websites. We will also encourage government-related organisations and the private sector to adopt such guidelines. These guidelines have also been published and made accessible to the general public and web developers. We will also explore the implementation of a website accreditation scheme so that websites that meet the accessibility guidelines may be readily recognised.

We will assess our performance in respect of this KRA against the following indicators –

- The IT awareness in the community to support the development of a knowledge-based economy.

- The IT take-up rate among businesses and households.

- The number of people who have received training under the IT awareness programme.

- The development of web accessibility and its promotion to the private sector.

We will pursue the following initiatives and targets to deliver results in this area –

| Initiative | Target |
|---|---|
| To enhance the accessibility of government websites<br><br>*(Information Technology and Broadcasting Bureau (ITBB)/ Information Technology Services Department (ITSD))* | To explore the development of text-to-speech translation services and a sound version for government websites in 2002 in order to facilitate the blind, the visually impaired, and senior citizens to access government online information |

| Initiative | Target |
|---|---|
| To support professional bodies in the IT industry to organise activities to help address the issue of digital divide<br><br>*(ITBB/ITSD)* | To collaborate with professional bodies in the IT industry in 2002 and 2003 to promote the adoption of web accessibility guidelines in private sector websites so as to facilitate access by the blind and the visually impaired |
| To provide basic IT training to the general public to enhance their IT awareness so as to help address the issue of digital divide<br><br>*(ITBB/ITSD/Home Affairs Department)* | To organise an IT awareness programme in 2002 |

## Leverage our strengths in exploitation of enabling technologies

Hong Kong has long been recognised internationally for our achievements in commercialising new technology applications. We should continue to leverage our strength as an early adopter and a mature user of technologies. We should aim to take a leadership position in the exploitation of advanced and key enabling technologies in areas which Hong Kong has a competitive advantage. This will further enhance our position as a leading digital city.

The advent of the Internet and the greater adoption of e-business by both the public and private sectors have substantially increased the potential for smart card usage. The use of this technology in payment transactions is becoming increasingly common in Hong Kong. The Government will replace the existing identity cards with a new generation of smart identity cards from 2003 onwards. The new identity card will take the form of a multi-application smart card with the capacity to support different types of applications, so as to establish a user-friendly platform to provide more efficient, better quality and value-added services to the community. This will be a significant step forward in enhancing our overall information infrastructure and facilitating the adoption of e-business in the community. We will develop value-added applications for riding on the smart identity cards to be issued in 2003.

There is a large potential of using mobile technology in the daily operation of the Government, particularly for off-site operations. The advent of mobile computing technologies provides the opportunity for computerising and streamlining many of the existing processes of field operations. This will substantially enhance operational efficiency and productivity of off-site government operations.

Voice recognition technology has been developing rapidly in the past years, and commercial applications are now available in the market to facilitate service delivery. With the excellent fixed line and mobile communication networks in Hong Kong, there is a potential for applying this technology in the delivery of public services. We will implement a pilot scheme in 2002 for providing selected public services using voice recognition technology.

We will assess our performance in respect of this KRA against the following indicators –

- The development of value-added applications for riding on smart identity cards. Our target is to make use of the smart identity card platform to provide user-friendly services to the community.

- The development of mobile computing solutions in enhancing government off-site operations. Our target is to use mobile computing technologies to improve the efficiency of off-site operations.

- The use of voice recognition technology in the delivery of public services. Our target is to provide multi-delivery channels to facilitate the community in obtaining public services.

We will pursue the following initiatives and targets to deliver results in this area –

| Initiative | Target |
| --- | --- |
| To exploit smart card technology *(Information Technology and Broadcasting Bureau (ITBB)/ Information Technology Services Department (ITSD))* | To develop value-added applications for riding on smart identity cards to be issued in 2003 |
| To exploit mobile computing technologies in enhancing off-site operations of departments *(ITBB/ITSD/Management Services Agency)* | To roll out a series of pilot projects in 2002 |
| To exploit public key technology in driving the development of mobile commerce *(ITBB/Hongkong Post)* | To roll out mobile digital certificates for secure mobile commerce by end-2001 |

| Initiative | Target |
|---|---|
| To exploit voice recognition technology in the delivery of public services<br><br>*(ITBB/ITSD)* | To implement a pilot scheme in 2002 for providing public services using voice recognition technology |

# Information Technology

## Detailed Progress

| 1 | Develop our IT infrastructure and set standards |
|---|---|

To achieve results in this area, various initiatives have been undertaken in the past years. Details are set out below –

| Initiative * | Target # | Present Position + |
|---|---|---|
| To encourage and support the establishment of a link between Hong Kong and the Internet2 network to promote research and development work on the Internet and to develop Hong Kong into an Internet hub in the region<br><br>*(Information Technology and Broadcasting Bureau (ITBB)/Information Technology Services Department (ITSD)/ University Grants Committee)* | To help set up the link in 2001<br><br>*(2000)* | A Working Group on Internet2 was set up in July 2001 to advise on the development of Internet2 in Hong Kong. It will also drive the completion, by end-2001, of the arrangements for the establishment of the Internet2 link.<br><br>*(Action in Progress: On Schedule)* |

\*  the bracketed information denotes the agency with lead responsibility for the initiative

\#  the bracketed information denotes the year in which the target was set

+  the bracketed information denotes the status of the target

| Initiative | Target | Present Position |
|---|---|---|
| To keep the administration and assignment of Internet domain names and Internet protocol addresses in line with international development trends so as to promote the extensive use of the Internet<br><br>*(ITBB/ITSD)* | To facilitate the establishment of the new arrangements in 2001<br><br>*(2000)* | We have implemented new registration policies, i.e. multiple registration and transfer of domain names, since June 2001. We have also put in place an alternative dispute resolution mechanism to resolve domain name disputes through arbitration. A preparatory committee has also been formed to prepare for the establishment of a new corporation for administering Internet domain names ending with ".hk".<br><br>*(Action in progress: On Schedule)* |
| To convert common government forms into the electronic format so that the public can complete the forms electronically and submit them online via the Internet<br><br>*(ITBB/ITSD)* | To convert some 200 government forms commonly used by the public into the electronic format by April 2001<br><br>*(2000)* | Some 200 electronic government forms have been made available to the public from April 2001.<br><br>*(Action Completed)* |
| To promote a paperless, electronic government<br><br>*(ITBB/ITSD)* | To extend the coverage of the Government Office Automation (GOA) Programme from the original target of 10 000 officers to 23 000 officers by April 2004<br><br>*(2000)* | The implementation of the GOA Extension Programme is in good progress, and we expect to advance its completion date to mid-2003.<br><br>*(Action in Progress: On Schedule)* |

| Initiative | Target | Present Position |
|---|---|---|
| To enhance government IT infrastructure to support the wider adoption of electronic transactions<br><br>*(ITBB/ITSD)* | To complete the enhancement by April 2003<br><br>*(2000)* | The implementation of various government IT infrastructure enhancement projects is in progress, and we expect to advance the completion date to end-2002.<br><br>*(Action in Progress: On Schedule)* |
| To co-ordinate and implement a phased programme for adopting inter-departmental and intra-departmental electronic transactions to promote the use of IT within the Government<br><br>*(ITBB/ITSD)* | To implement several common inter-departmental and intra-departmental electronic transactions by April 2002<br><br>*(2000)* | • A pilot scheme for the Electronic Leave Application and Processing System was launched in January 2001.  The system is being rolled out for wider adoption within the Government.<br><br>• A web-based system for electronic submission of funding applications for computerisation projects within the Government was launched in June 2001.<br><br>• A pilot system for putting the process to prepare the annual estimates online was launched in September 2001.<br><br>• Web-based systems for placing orders for common store items and printing government publications online are being developed.<br><br>*(Action in Progress: On Schedule)* |

| Initiative | Target | Present Position |
|---|---|---|
| To co-ordinate and implement the Confidential Mail Programme within government so that confidential materials can be transmitted electronically<br><br>*(ITBB/ITSD)* | To complete the implementation of the Confidential Mail Programme by end-2002<br><br>*(2000)* | The implementation of the Programme is in good progress, and we expect to advance its completion date to mid-2002.<br><br>*(Action in Progress: On Schedule)* |
| To co-ordinate and implement proper Software Asset Management practices for all government computer systems<br><br>*(ITBB/ITSD)* | To complete the adoption of proper Software Asset Management practices in all departments by mid-2001<br><br>*(2000)* | All government departments have implemented Software Asset Management by April 2001<br><br>*(Action Completed)* |
| To enhance the institutional arrangements within government to strengthen the security of government information systems<br><br>*(ITBB/ITSD)* | To establish by end-2000 an Information Security Management Committee to develop up-to-date security-related policies and guidelines for use within government<br><br>*(2000)* | The Information Security Management Committee was established in June 2000. It has developed up-to-date baseline IT security policy and guidelines to handle security incidents for use within government.<br><br>*(Action Completed)* |

| Initiative | Target | Present Position |
|---|---|---|
| To develop and establish cross-recognition between the Hong Kong Special Administrative Region and other economies in respect of the operation of certification authorities<br><br>*(ITBB)* | To actively explore with other governments, either on a bilateral or multilateral basis, arrangements for cross-recognition of certification authorities in 2000-2001<br><br>*(1999)* | The Hongkong Post Certification Authority has signed Memoranda of Understanding on cross-recognition arrangements with the Korea Information Certificate Authority and the Shanghai Electronic Certificate Authority. We have also participated actively in the deliberations of the subject in the context of the Asia Pacific Economic Co-operation (APEC).<br><br>*(Action Completed)* |

| Initiative | Target | Present Position |
|---|---|---|
| To oversee and co-ordinate the development of the Cyberport at Telegraph Bay<br><br>*(ITBB)* | To ensure the timely completion of the Cyberport by phases from late 2001/early 2002 to end-2003, and to put in place the institutional arrangements for the selection of tenants and for the future management of the Cyberport<br><br>*(1999)* | • Construction and the related infrastructural works (such as the access roads) have been progressing well. The Cyberport is scheduled for completion between early 2002 and end-2003.<br><br>• We have set up a Committee on Admission of Cyberport Office Tenants in March 2001, comprising local and overseas experts and industry members, to advise us on the selection of Cyberport office tenants. We issued in late April 2001 our invitation to IT companies to submit applications for office tenancy for all the phases of the Cyberport. By end-September 2001, we have received 68 applications from multinational, local and overseas companies. The first batch of successful applicants will move into the Cyberport in the first half of 2002. |

| Initiative | Target | Present Position |
|---|---|---|
| | | ● We have set up a limited company owned by the Financial Secretary Incorporated to operate the Cyberport in accordance with prudent commercial principles. We are considering the appointment of a management committee under this company, and are in the process of engaging a management agent. *(Action in Progress: On Schedule)* |
| To co-ordinate and implement a phased programme for the electronic delivery of services through an information infrastructure with an open, common interface in the public sector, and subsequently extending it to cover the private sector *(ITBB)* | To invite tenders from potential service operators in 1998-1999, with a view to introducing the first phase of Electronic Service Delivery (ESD) Scheme in 2000 *(1998)* | We launched the ESD Scheme in December 2000. The Scheme now covers more than 100 types of services provided by over 30 government departments and public agencies. *(Action Completed)* |

| Initiative | Target | Present Position |
|---|---|---|
| To establish a common interface for using Chinese in electronic communication and data exchange between government and the community<br><br>*(ITSD)* | To establish the common interface in 2000<br><br>*(1998)* | We have worked closely with other economies under the aegis of the International Organisation for Standardisation (ISO) on the development of the ISO 10646 Standard for ideographic character coding which forms the basis for the common interface. We have put in place a mechanism for the management of the Hong Kong Supplementary Character Set under the ISO 10646 Standard in early 2000.<br><br>*(Action Completed)* |
| To continue to conclude bilateral arrangements on IT co-operation with countries which are advanced in IT development<br><br>*(ITBB)* | To actively explore the possibility of concluding bilateral arrangements on IT co-operation with interested partners in 1999-2000<br><br>*(1998)* | We entered into bilateral arrangements in IT co-operation with Finland, India and Israel in 2000. We will continue to explore the potential for bilateral arrangements on IT co-operation with other interested partners.<br><br>*(Action Completed)* |
| To extend the GOA Programme to cover the whole of government<br><br>*(ITBB)* | To extend the GOA Programme to cover the whole of government by 2000<br><br>*(1997)* | We completed the Programme in November 2000.<br><br>*(Action Completed)* |

# 2     Foster the development of the IT industry locally

To achieve results in this area, various initiatives have been undertaken in the past years. Details are set out below –

| Initiative | Target | Present Position |
|---|---|---|
| To collect the relevant statistics to assess the usage of IT in business and the development of the IT industry locally<br><br>*(Information Technology and Broadcasting Bureau (ITBB)/ Information Technology Services Department (ITSD)/ Census & Statistics Department)* | To conduct annual surveys on the use of IT in the business community starting from 2000<br><br>*(2000)* | The first benchmarking survey was conducted in March-June 2000. The second survey was conducted in March-June 2001.<br><br>*(Action in progress: On Schedule)* |
| To support the establishment of a Computer Emergency Response Centre (CERC) in Hong Kong<br><br>*(ITBB/ITSD)* | To help establish a local CERC by April 2001<br><br>*(2000)* | The CERC was established in February 2001.<br><br>*(Action Completed)* |
| To expand outsourcing by ITSD in order to foster the growth of the local IT industry<br><br>*(ITSD)* | In 1999-2000 to start outsourcing the application maintenance activities currently performed in-house by ITSD<br><br>*(1998)* | ITSD has outsourced over two-thirds of new IT projects in 1999-2000. It has also started outsourcing application maintenance activities. In 2001-2002, five departments are expected to outsource all or part of their application maintenance services.<br><br>*(Action Completed)* |

# 3 Promote and facilitate the use of new and emerging information technologies within the community

To achieve results in this area, various initiatives have been undertaken in the past years. Details are set out below –

| Initiative | Target | Present Position |
|---|---|---|
| To collect the relevant statistics to assess the usage and development of IT in the community *(Information Technology and Broadcasting Bureau (ITBB)/Information Technology Services Department (ITSD)/ Census & Statistics Department)* | To conduct annual household surveys on the use of IT in the community starting from 2000 *(2000)* | The first benchmarking survey was conducted in March-June 2000. The second survey was conducted in March-June 2001. *(Action in progress: On Schedule)* |
| To organise promotional activities to encourage the wider use of IT in the community *(ITBB/ITSD)* | To organise a major IT campaign in the 18 districts to promote the wider use of IT at district level in 2000-2001 *(2000)* | The IT Hong Kong (ITHK) promotional campaign was launched in September 2000 which comprised organising IT awareness courses, launching dedicated ITHK website, recruiting IT pioneers and other promotional activities. *(Action Completed)* |

| Initiative | Target | Present Position |
|---|---|---|
| To provide more government services online through the implementation of the Electronic Service Delivery (ESD) Scheme<br><br>*(ITBB/ITSD)* | To implement additional ESD applications in 2001-2002 and in subsequent years<br><br>*(2000)* | A number of new ESD applications including booking of marriage dates, purchase of government publications, booking of sports and leisure facilities and registration to sit for public examinations, etc. will be launched in 2001<br><br>*(Action in Progress: On Schedule)* |
| To enable small and medium enterprises (SMEs) to adopt electronic commerce at affordable cost<br><br>*(ITBB)* | To liaise with industrial support bodies and encourage them to provide practical electronic commerce solutions at affordable cost to SMEs<br><br>*(1999)* | We have worked closely with the Hong Kong Trade Development Council and the Hong Kong Productivity Council to package their electronic commerce services into comprehensive and readily affordable solution packages for SMEs. These solution packages include online marketing services and electronic backend trading application systems.<br><br>*(Action Completed)* |
| To transform the delivery of public services by using the ESD infrastructure (The Government will spend $173 million on launching the online government ESD Scheme)<br><br>*(ITBB)* | To implement the first tranche of public services through ESD Scheme by 2000<br><br>*(1998)* | We launched the ESD Scheme in December 2000. The Scheme now covers more than 100 types of services provided by over 30 government departments and public agencies.<br><br>*(Action Completed)* |

| Initiative | Target | Present Position |
|---|---|---|
| To launch programmes to encourage the private sector, especially SMEs, to engage in electronic commerce<br><br>*(ITBB)* | To work with chambers of commerce and other representative organisations to encourage the participation of consumers, and in particular SMEs, in electronic commerce<br><br>*(1998)* | We have launched a series of projects. These include –<br><br>● launching a bi-monthly seminar series together with the Hong Kong Trade Development Council and the Hong Kong Information Technology Federation on electronic commerce, targeting SMEs in specific business sectors;<br><br>● promoting electronic commerce to the general public through exhibitions and roving shows;<br><br>● taking part in seminars organised by chambers of commerce to encourage their members to adopt electronic commerce in business operations; and<br><br>● providing up-to-date information on electronic commerce through government websites and through production and distribution of CD-ROM to the business community.<br><br>*(Action Completed)* |