

**Consultation Paper on the Review  
on Administration of Internet Domain Names  
in Hong Kong**

Government Chief Information Officer  
Commerce, Industry and Technology Bureau  
The Government of the Hong Kong Special Administrative Region

**May 2007**

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## **Foreword**

The Government Chief Information Officer (GCIO) has recently conducted a consultancy review on the administration of Internet domain names in Hong Kong. This consultation paper invites comments on the recommendations before finalising any proposals on changes and arrangements.

Interested parties may forward their written submissions to the Government Chief Information Officer of the Commerce, Industry and Technology Bureau on or before **15 June 2007** by any of the following means:

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Commerce, Industry and Technology Bureau  
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This Consultation Paper is also available at the following websites:

<http://www.ogcio.gov.hk/eng/pubpress/download/edomainreview.pdf> (English)

<http://www.ogcio.gov.hk/chi/pubpress/download/cdomainreview.pdf> (Chinese)

**Government Chief Information Officer  
Commerce, Industry and Technology Bureau  
May 2007**

## Background

In October 1999, a Task Force under the then Information Infrastructure Advisory Committee (IIAC)<sup>1</sup> was set up with a view to recommending a framework of arrangements which best suited Hong Kong's needs to ensure that the administration of Internet domain names of “.hk” was effective and the services provided were market-oriented. The proposals of the Task Force were endorsed by the IIAC and published for public consultation<sup>2</sup> in 2000.

2. The consultation results showed that there was general support for the proposal that the Joint Universities Computer Centre (JUCC), the former administrator of “.hk” domain names, should gradually transfer the Internet domain names administration functions to a new non-statutory and non-profit making corporation.

3. In December 2001, the Hong Kong Internet Registration Corporation Limited (HKIRC) was incorporated as a non-profit making company limited by guarantee for the purpose of taking up the overall responsibility for “.hk” Internet domain name administration. In March 2002, the HKIRC acquired the Hong Kong Domain Name Registration Company Limited (HKDNR), a wholly-owned subsidiary of the JUCC, as HKIRC's operation arm responsible for the administration of “.hk” Internet domain names.

4. In April 2002, the Government and the HKIRC signed a Memorandum of Understanding (MOU) for the Management and Administration of Internet Domain Names in Hong Kong in which the Government designated the HKIRC to manage and administer all Internet domain names under the “.hk” country-code top level domain (ccTLD).

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<sup>1</sup> The then IIAC was established in August 1998 to advise the Government on the ways and means to promote the development of Hong Kong into a leading digital city.

<sup>2</sup> Details of the public consultation in 2000 are available at [http://www.info.gov.hk/digital21/eng/itstructure/dnip\\_main.html](http://www.info.gov.hk/digital21/eng/itstructure/dnip_main.html)

5. The HKIRC is governed by a Board of 13 non-executive, part-time directors comprising members from six different member classes, namely User Class, Service Provider Class, IT Industry Class, Commerce and Industry Class, Tertiary Institution Class and Government Class. Except for the Government Class, directors are elected by HKIRC Members of the corresponding class for a three-year term. The Government Class director is appointed by the GCIO.

6. The Memorandum and Articles of Association of the HKIRC can be found in its company website at:

<http://members.hkirc.hk/MRS/articles/M&A06.pdf>

Further information about the HKIRC can be found at:

<http://www.hkirc.hk>

## **Review on the Administration of Internet Domain Names in Hong Kong**

7. Since the current arrangements for the administration of “.hk” Internet domain names were put in place, there have been a number of developments which may impact on the administration of Internet domain names.

- i. governments’ role is observed to be increasingly important as the proportion of ccTLD domain name registrations has continued to grow, reaching to about 40 per cent of the total number of registered domains worldwide in 2005.
- ii. there are changes to Internet governance at the global level, with discussion on the role of the Internet Corporation for Assigned Names and Numbers (ICANN)<sup>3</sup>.
- iii. there is increasing understanding and appreciation of what constitutes good practice in ccTLD governance and administration.
- iv. there are increasing new challenges raised by technological changes for ccTLD governance regimes.

8. Against this context of environmental change, we commissioned a consultancy study in 2006 to review the institutional framework and corporate governance for the administration of Internet domain names in Hong Kong. The study looked at how the existing framework and arrangements can be improved to the best advantage of the Hong Kong community having regard to the latest international and regional developments.

9. The consultant conducted extensive research on the state of domain name administration regimes across more than a dozen countries and economies, and carried out qualitative studies and interviews in a few of them. In Hong Kong, the consultant conducted face-to-face interviews with key stakeholders and a web-based questionnaire distributed to a wider group of stakeholders to assess the current situation in relation to corporate governance for the administration of Internet domain names.

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<sup>3</sup> The Internet Corporation for Assigned Names and Numbers (ICANN) is an internationally organized, non-profit corporation that has responsibility for Internet Protocol (IP) address space allocation, protocol identifier assignment, generic (gTLD) and country code (ccTLD) Top-Level Domain name system management, and root server system management functions.

10. The consultant put forward a set of recommendations based on the Hong Kong review and the international research. Having considered the overall information and communications technology (ICT) strategy and scope of practical implementation in Hong Kong, we have set out the recommended changes to the institutional framework and corporate governance for the administration of “.hk” Internet domain names. These are described in the following paragraphs.

### **The institutional framework**

11. From the international research, the consultant concluded that it is not possible to define a single set of best practices, and rank countries and economies linearly according to how they measure up against such best practices. Instead, different possible organisational and governance settings and choices for ccTLD regimes may be appropriate, depending on each institution’s priorities and the context in which the institution is embedded.

12. The international research identified the following five organisational solutions -

- A single not-for-profit organisation with ccTLD administration as its only mission (economies that adopt this regime include Australia, Canada, France, Germany, Sweden, Taiwan and the UK)
- A single for profit organisation with ccTLD registry as its only mission (Japan, US)
- A government agency with broad jurisdiction on ICT managing internally, through a department, the ccTLD administration (Finland)
- A single not-for-profit subsidiary of the government with ccTLD administration as its only mission (China, Singapore)
- A not-for-profit or statutory body functioning as a subsidiary to the government but with a broader mandate on ICT issues (India, Korea)

13. The consultant is of the view that the Hong Kong approach – based on delegation by the government of the ccTLD management function to an arms-length, non-profit making organisation – is a viable one with a track record of success in a number of countries and economies, and the fundamental structure of current governance arrangements in Hong Kong is fit for its purpose. The consultant therefore recommends that delegation by the Government of the domain name management function to the HKIRC, an arms-length, non-profit making organisation should be retained in the near term.

### **The guiding principles**

14. The “.hk” ccTLD is a public resource of the HKSAR and as such should be administered in a way that would maximise the benefits to the Hong Kong community. Having regard to the international and regional developments, the consultant has identified a number of guiding principles of critical importance for the management and administration of Internet domain names in Hong Kong, and recommends the ccTLD administrative corporation (currently the HKIRC) to adopt such principles. They are –

- **Independence:** the corporation should act and be able to demonstrate that it acts, in the interests of the Internet community in the Hong Kong Special Administrative Region and the Internet community worldwide, without undue interference by its stakeholders. It must be autonomous of political, business or other interests
- **World-class standards:** all activities within the domain name registration system should be performed with a maximum of quality standard and quality control, ensuring security of the system and of users’ data, and promoting the stability and resilience of the Internet in Hong Kong and globally
- **Competition:** the corporation should seek to develop policies and operating models which support competition and consumer choice in the management of “.hk” domain names, with the aim of lowering costs, promoting innovation, enhancing user choice and satisfaction, and increasing the number of “.hk” users



- **Stakeholder involvement:** the corporation should ensure that the interests of all stakeholders in the Hong Kong Internet community are taken into account and balanced in decisions about the domain name registration system
- **Transparency:** the corporation should conduct its activities in an open and transparent manner that ensures wide public access to all relevant information
- **Future orientation:** the corporation should seek to be innovative in the provision of new services, and to anticipate and respond flexibly to new technological and market developments which may impact on domain name registration

### **Scope and priorities of the HKIRC**

15. In the light of the above guiding principles, the consultant recommends that the HKIRC should continue to focus on the core business of domain name registration with the following responsibilities –

- Manage the “.hk” ccTLD and provide services for registration of all levels of Internet domain names under the “.hk” ccTLD and its other equivalents including but not limited to registry services, registrar services and other services ancillary thereto, in an efficient and effective manner, responding to stakeholders’ needs;
- Maintain and promote a stable, secure and interoperable domain name system (DNS) which abides by the technical requirements set forth by ICANN;
- Maintain open and transparent procedures which are inclusive of all parties having an interest in the use of the “.hk” domain names;
- Maintain appropriate complaints handling and disputes resolution processes; and
- Maintain an alert mechanism which will inform the GCIO promptly of any incidents which represent a significant failure including but not limited to the above duties.

## **Corporate governance mechanism**

16. Given the greater clarity about the scope and priorities of HKIRC, the consultant is of the view that the administration of the “.hk” ccTLD regime is now maturing to the point where the HKIRC should establish a new Consultative and Advisory Panel (CAP) that engages a broad set of stakeholders to advise the Board on major ccTLD issues and facilitates the interaction of the Board with the stakeholders in general and with specific interest groups. With the strategic engagement of key stakeholders being undertaken via the new CAP, the number of directors in the Board can be reduced to allow more effective strategic and operational management.

17. The consultant is of the view that the Board should be moved to a mix of appointed and member-elected non-executive directors to allow the Board to expand the available pool from those who solely have a strong interest in ccTLD issues to a wider set of qualified, professional non-executives. The new CAP should comprise a Government representative and other members invited by the Government from the Internet community, including users, industry, academia and the Government as well as renowned and independent organisations and individuals. The Board would have a duty to take full account of CAP guidance when reaching decisions, but would not be bound by it since, ultimately, the Board is responsible for the organisation. There should be a transparent mechanism for the Board to account for its decisions in any circumstances in which it decides not to follow the advice of the CAP. Please refer to **Annex** for the proposed mandate and composition of the Board and the CAP.

18. In addition, the consultant is of the view that the HKIRC should increase both the number of the HKIRC Members and their level of engagement, including through streamlining the current process for becoming a Member as well as simplifying membership classes and the election process of directors. Based on international examples, the sort of changes envisaged include –

- significantly reducing the number of membership classes from the current six to three (i.e. Supply Class, Demand Class and Representative Association Class) ; and
- simplifying the process of becoming a Member – for example domain name registrants are automatically given Membership with an option to opt out if they wish to do so.

19. The consultant recommends that the Government should gradually reduce its involvement on the Board with operational management of the HKIRC. This reduced operational engagement should be accompanied by a stronger engagement at a strategic level on the CAP through implementation of a Transition Plan which is agreed with the Government and which ensures business continuity from the current Board.

### **Registry-registrar system**

20. As shown in the international research, a registry-registrar system is in place in most of the economies surveyed. This widely adopted system provides two levers that can be fine tuned to manage the ccTLD administration –

- Through the setting of wholesale pricing and promotion to stimulate competition among accredited registrars and growth of the ccTLD size;
- Through accreditation requirements to ensure financial and technical reliability of the registrars and thus preserve the integrity and security of the system.

21. The consultant recommends that the HKIRC should introduce, following consultation with all interested stakeholders, a “registry-registrar” model, whereby appropriate bodies may provide “.hk” users with registrar services on an equal and competitive basis with the HKIRC.

### **Performance measurement and monitoring**

22. To reflect the guiding principles in paragraph 14 above, the consultant recommends that the HKIRC should publish a comprehensive Corporate Governance Framework established collaboratively with the Government and through stakeholder consultation. This framework should document key aspects of the development and administration of the “.hk” ccTLD.

23. In addition, the HKIRC should introduce a comprehensive system of performance measurement with key metrics agreed with the CAP and report quarterly to the CAP on these measures. The system should cover, inter alia, security and technical aspects of its work (including a narrative summary of the work performed with appropriate details and particularity, a description of major events and problems encountered, and any projected significant changes), customer satisfaction and service level metrics, financial performance and human resource issues.

### **Strategic plan**

24. The consultant recommends that the HKIRC should develop and publish a Five-Year Strategic Plan, setting out amongst other things HKIRC's plans for developing, consulting on, and implementing measures to take forward the above recommendations. This Plan should aim at implementing the recommended changes no later than the start of the 2009 term of the Board, i.e. around September.

25. The HKIRC should also update its Strategic Plan and report on key performance data on an annual basis, taking into account guidance from the CAP and any amendments to the MOU between the Government and the HKIRC.

### **MOU renewal**

26. The consultant recommends that the enhanced institutional framework and corporate governance should be reflected in a clearer and more outcome-focused MOU for the management and administration of Internet domain names.

27. The consultant recommends that the MOU should be time-limited and renewable in the light of experience, feedback from the Internet community, relevant market and technological developments. The HKIRC should collaborate with the Government on a formal review of the MOU, to be undertaken five years after execution.

## **Public Consultation**

28. We welcome views on the recommendations set out in this document, and will take all suggestions into consideration before finalising the proposals on changes and arrangements for the administration of “.hk” Internet domain names in Hong Kong.

**Government Chief Information Officer  
Commerce, Industry and Technology Bureau  
May 2007**

**Proposed Mandate and Composition  
of the Management Board**

**Mandate**

- Focus on strategic and operational governance
- Supervise the work of the CEO and the senior management team
- Ensure the work of the organisation reflects the principles and objectives in the MOU and the strategic plan

**Composition**

A Board comprising seven (7) Non Executive Directors including -

- 4 Directors appointed by the Government
- 3 Directors, each of whom elected by the respective HKIRC membership class (i.e. Supply Class, Demand Class and Representative Association Class)
- The Chairman of the Board should be one of the Directors appointed by the Government

## **Proposed Mandate and Composition of the Consultative and Advisory Panel**

### **Mandate**

- Advise the Board on major issues such as domain name registration rules, pricing, internal governance arrangements, etc.
- Launch consultation process on issues that the Board directly refers to the CAP given their policy implications to Internet stakeholders
- Monitor the degree to which the Board provides feedback to and seeks the views and opinions from existing and potential customers bearing in mind the requirements and good practices of digital inclusion
- Facilitate the interaction of the Board with the stakeholders in general and with specific interest groups

### **Composition**

A Panel of around fourteen (14) unpaid members comprising -

- One Government representative nominated by the Government Chief Information Officer
- Other members invited by the Government from the Internet community, including end users, industry, academia and the Government as well as renowned and independent organisations and individuals