

Telecommunications statistics

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Content

- Overview of Hong Kong telecommunications market
- Why does the regulator need to collect data & statistics?
- How does the regulator collect data & statistics?
- Legal basis for collecting data & statistics
- ICT Indicators
- Overview of published telecom statistics in Hong Kong
- Procedures on collecting and disseminating data
- Case studies
- Lessons

Overview of Hong Kong telecommunications market (1)

- Full liberalisation on the provision of telecommunications services
 - No restriction on provision of mobile services, except due to spectrum constraint
 - Provision of external services and facilities liberalised since 1999 and 2000 respectively
 - Provision of local services fully liberalised since 2003
- No foreign ownership restrictions
- Pro-customer and pro-competition telecommunications Policy with the objectives that
 - the widest range of quality telecommunications services should be available to the community at reasonable cost;
 - telecommunications services should be provided in the most economically efficient manner possible; and
 - Hong Kong should serve as the pre-eminent communications hub for the region

Overview of Hong Kong telecommunications market (2)

- No. of operators
 - fixed network operators - local 11, external 29
 - external telecommunications service operators - 251
 - mobile network operators – 5
 - 4 WCDMA 3G networks,
 - 3 GSM networks,
 - 6 PCS networks and
 - 1 CDMA network (which will be replaced by a CDMA2000 by next Nov 08)
 - Internet service providers – 175

Overview of Hong Kong telecommunications market (3)

- Household fixed line penetration rate - 96%
- Mobile subscriber penetration rate - 139%
- Household broadband penetration rate - 74%
- Household enjoying an alternative choice of local fixed network operators - 79%
- No. of WiFi location - about 3000
- No. of WiFi access point >5000

Why does the regulator need to collect data ?

- Publish statistics to allow public to have a better understanding on the market status
- Market surveillance to gather information to assist in the formulation of policies and regulations
- Fulfil international obligations
- Facilitate the regulator to carry out its duties and functions

How does the regulator collect data ?

- Request for input from licensees by imposing the relevant licence conditions
- Make use of market survey
- Obtain information from open sources (e.g. press releases, annual reports, market reports, other sources on Internet)
- Obtain information from other regulators or ITU

Legal basis (1)

- **Telecommunications Ordinance**

- **Section 71 on “Information”**

- “A person who provides or offers a public telecommunications service shall supply the Authority in the manner and at the times the Authority requests the information relating to its business that the Authority may reasonably require to perform his functions, or exercise his powers, in order to ensure the person's compliance with the provisions of this Ordinance, licence conditions, and the determinations and directions of the Authority, applicable to the person.”

Legal basis (2)

- **Licence Condition**

- **Requirement to furnish information to Authority**

- “The licensee shall furnish to the Authority, in such manner and at such times as the Authority may request in writing, such information related to the business run by the licensee under this licence, including financial, technical and statistical information, accounts and other records, as the Authority may reasonably require in order to perform his functions under the Ordinance and this licence.”

Legal basis (3)

- **Licence Condition**

- **Requirement to furnish information to Authority**

- “Subject to the following condition, the Authority may use and disclose information to such person as the Authority thinks fit.”
- “Where the Authority proposes to disclose information obtained and the Authority considers that the disclosure would result in the release of information concerning the business or commercial or financial affairs of a licensee which disclosure would or could reasonably be expected to adversely affect the licensee's lawful business or commercial or financial affairs, the Authority will give the licensee a reasonable opportunity to make representations on the proposed disclosure before the Authority makes a final decision whether to disclose the information.”

Legal basis (4)

- The Authority can issue direction under section 36B of the Telecommunications Ordinance to direct the licensee to comply with any of the terms or conditions of its licence; or any provision of the Telecommunications Ordinance.
- Failure to comply with the Authority's direction on the first occasion may subject the licensee concerned to a financial penalty of up to HK\$200,000. If the licensee still refuses to comply, further directions may be issued. The financial penalty for failure to comply with further directions is up to HK\$500,000 for the second occasion, and up to HK\$1,000,000 for subsequent occasions.
- If these financial penalties are not considered adequate, the Authority may apply to the Court to impose a financial penalty of up to 10% of the turnover of licensee concerned during the period of breach or HK\$10,000,000, whichever is the higher.

ICT Indicators

- ICT indicators reported to ITU involve inputs from Census & Statistics Department (“C&SD”) and OFTA
 - Reported by C&SD
 - Demography, economy
 - Information technology
 - Revenue and expense
 - Capital expenditure
 - ...
 - Reported by OFTA
 - Telephone network
 - Mobile services
 - Traffic
 - ...

Overview of published statistics (1)

- List of statistics and data published by OFTA:
 - Key Telecommunications Statistics
 - Wireless Service
 - Wireline Service
 - SMS Statistics for Special Dates
 - Statistics on Mobile Number Portings
 - Statistics on Number Portings among Local Fixed Network Operator
 - External Telecommunications Traffic
 - Capacity of External Telecommunications Facilities
 - Traffic Statistics Reporting Requirements for External Telecommunications Services
 - Internet Service
 - Public Wi-Fi Services
 - SMATV
 - Enforcement Figures
 - Public Payphone Register
 - Hong Kong Telecommunications Indicators
 - In-Building Coaxial Cable Distribution System

Overview of published statistics (2)

- General statistics

- No. of operators

- No. of subscribers/lines

- No. of mobile subscribers (2G, 2.5G, 3G and MVNO) and short message service

- No. of fixed network subscribers (exchange lines, facsimile, local leased lines)

- No. of registered Internet accounts (broadband, narrowband)

- Volume of traffic

- External telecommunications traffic and capacity

- Internet traffic volume

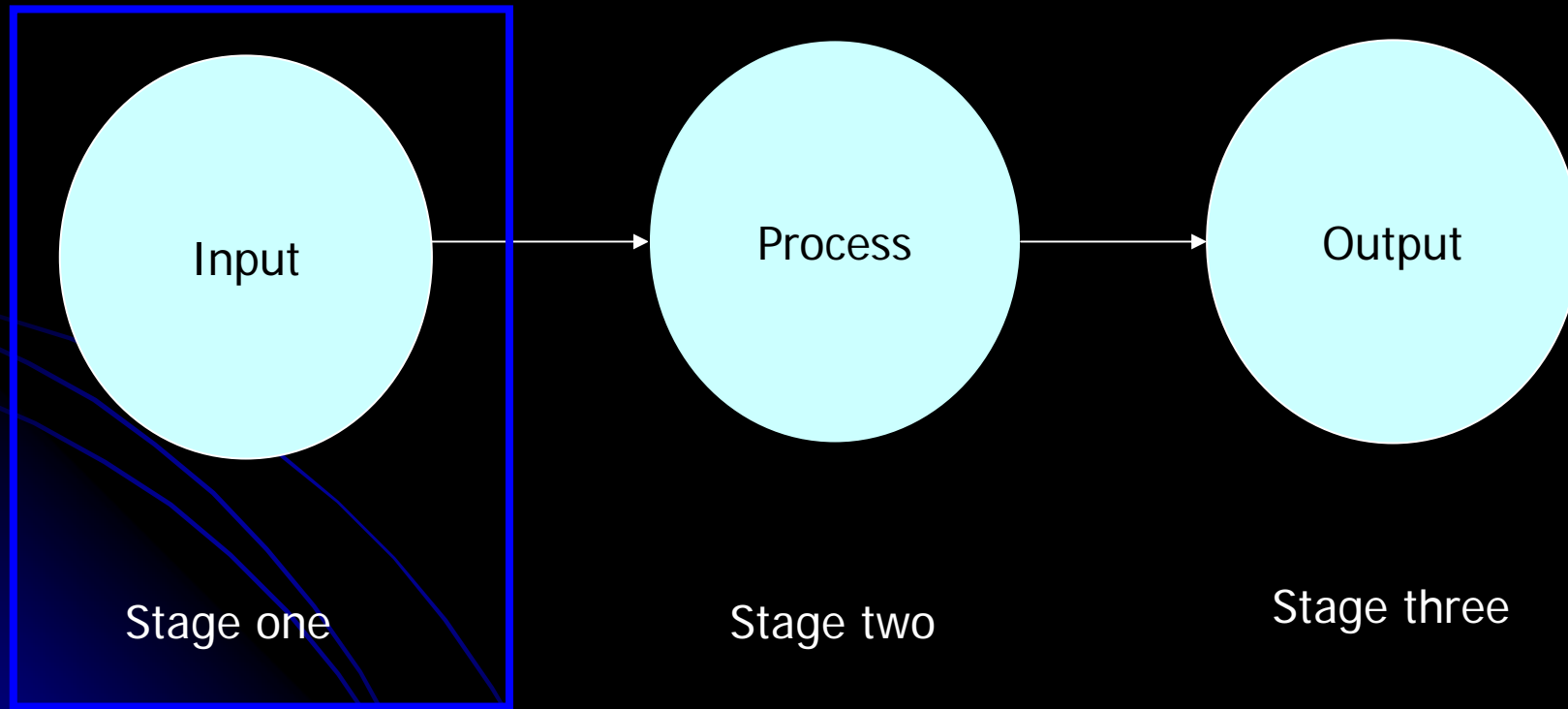
Overview of published statistics (3)

- Other Statistics
 - Number porting
 - Enforcement statistics
- Public register for telecom systems or services
 - List of buildings with two or more alternative networks
 - Register of Payphones
 - Register of SMATV systems
 - Register of Wi-Fi hotspots

Overview of published statistics (4)

- Reporting periods for statistics
 - Monthly basis
 - External telecommunications traffic (minutes)
 - Internet traffic (volume of data)
 - Statistics on Fixed and Mobile Number Portings
 - Quarterly basis
 - Capacity of External Telecommunications Facilities
 - Half-yearly basis
 - Capacity of IPLC
 - Yearly basis
 - Telecommunication Indicators in Hong Kong
 - Per event basis
 - Short messages for special days

Procedures on collecting and disseminating data (1)



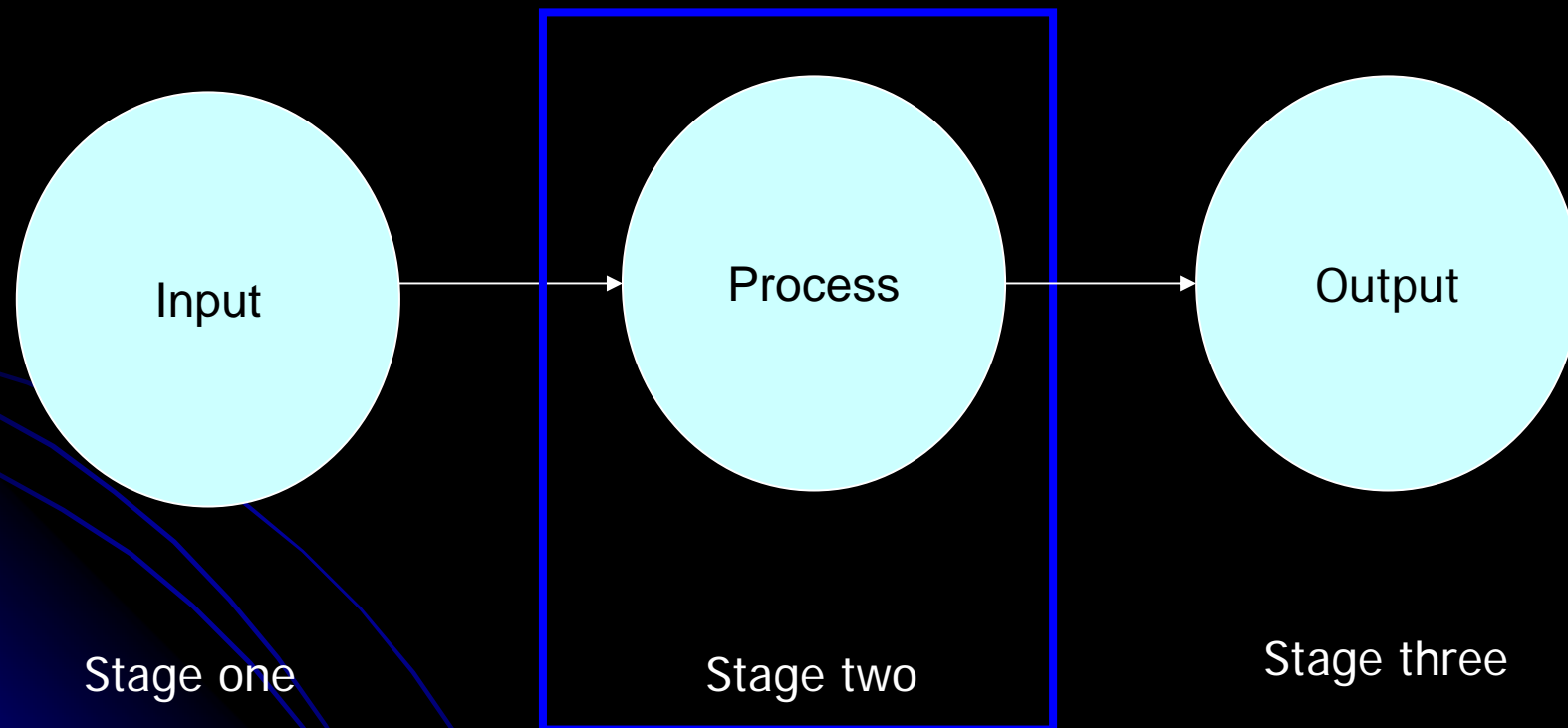
Procedures on collecting and disseminating data (2)

- Stage one – request for input
 - Determine the nature of data to be collected
 - Statistical data for public interests
 - Performance indicators to facilitate customers to make informed choices
 - Other information to facilitate the Authority to perform duties
 - Decide the content and format of data to be collected
 - Consult with operators if necessary on whether they have any comments or problems for providing the data

Procedures on collecting and disseminating data (3)

- Stage one – request for input
 - Design a standard form to facilitate data compilation
 - Clearly define each data item to ensure comparability
 - Inform operators of the reporting requirement at an earlier time (e.g. issuing the licence) to avoid any delay
 - Respond promptly to any enquiry

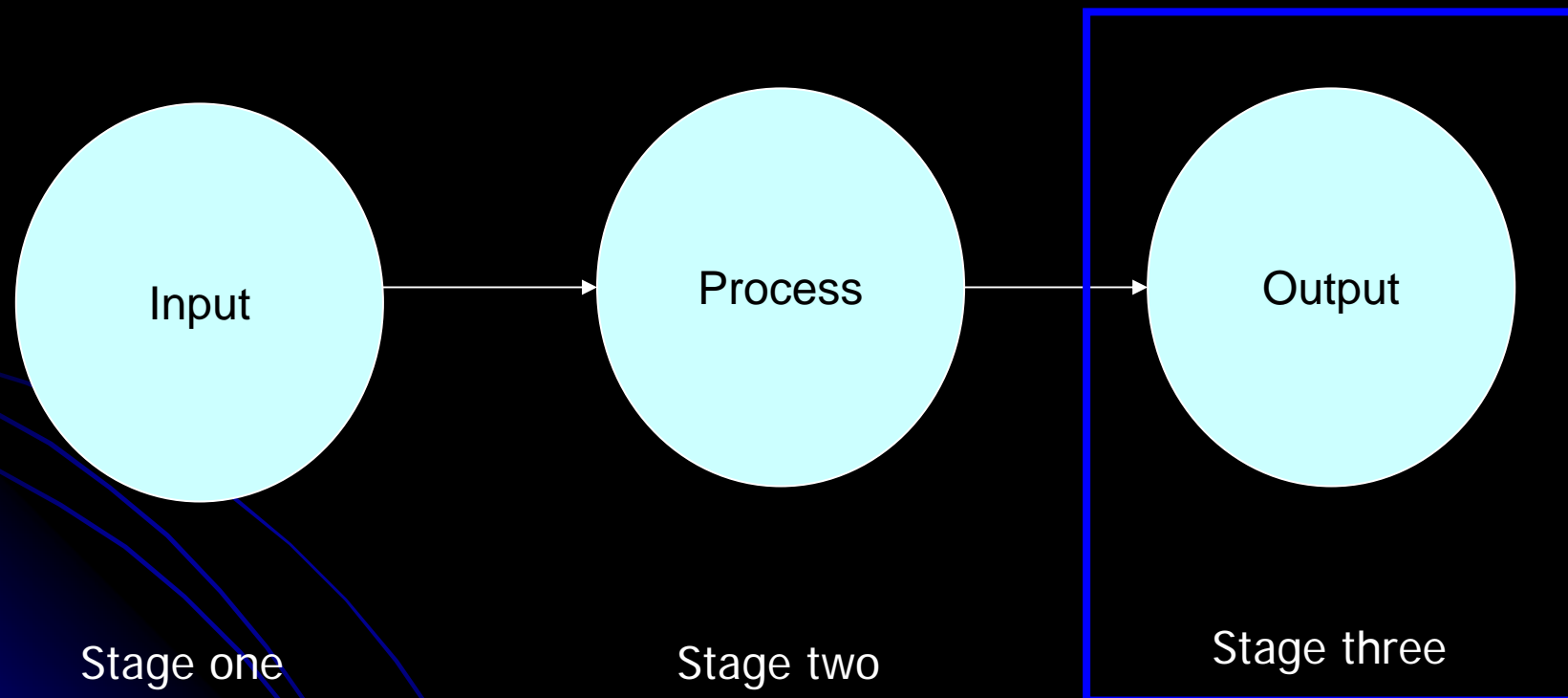
Procedures on collecting and disseminating data (4)



Procedures on collecting and disseminating data (5)

- Stage two – process
 - Perform analytical review to identify any data irregularities
 - Input control to verify data accuracy
 - Review by a staff other than the preparer
 - Consolidate all inputs using software, e.g. Excel, Access
 - Backup data regularly to prevent data loss
 - Limit access right of data to ensure confidentiality

Procedures on collecting and disseminating data (6)



Procedures on collecting and disseminating data (7)

- Stage three – output
 - Disseminate aggregated figures for sensitive issues
 - Obtain consent from individual operator if company-specific data will be released
 - Solicit comments from operators on the draft report (on sensitive issues) before publishing

Major issues on collecting and disseminating data (8)

- Stage three – output
 - Posting on the regulator's website
 - Examples
 - General statistics
 - <http://www.ofta.gov.hk/en/datastat/main.html>
 - Location of hotspot
 - http://apps.ofta.gov.hk/apps/clr/content/public_search.asp?language=english
 - Building with at least two customer access network
 - https://apps.ofta.gov.hk/apps/buildinglist/content/mixtype_search.asp
 - Sending reports (either softcopy or hardcopy) to users (if appropriate, also send to parties providing data as a courtesy)

Case Study 1 – Wi-Fi Statistics (1)

- Currently, public Wi-Fi service (a kind of public wireless LAN service) can be provided under the following licensing regime:
 - Class licence (24 licensees registered)
 - Fixed carrier licence (5 licensees authorised)
- Class licence requires no individual application, but only a simple registration process
- Licensees input/update information on registered Wi-Fi locations using a web-based on-line database
- No statistics previously published for public Wi-Fi service

Case Study 1 – Wi-Fi Statistics (2)

- With increasing popularity of Wi-Fi access in Hong Kong, the following statistics are needed for public interests:
 - No. of Wi-Fi operators (available)
 - No. of Wi-Fi locations (available)
 - No. of Wi-Fi access points (*not previously available*)
- For compilation of the required statistics
 - First stage : Request for input from licensees and manual compilation by OFTA
 - Second stage : Modification of on-line database to facilitate automatic entry by licensees

Case Study 2 – List of buildings covered by fixed network operators (1)

- The Authority announced on 6 July 2004 that mandatory Type II interconnection at telephone exchange level (i.e. local loop unbundling) will be withdrawn in order to promote investment and consumer choice in high bandwidth customer access networks.
- The withdrawal will be fully implemented across the territory by 30 June 2008, except for buildings meeting the "essential facilities" criterion.
- In the run-up to this date, withdrawal will be implemented in an orderly manner on a building-by-building basis and will apply to buildings already connected to at least two self-built customer access networks.

Case Study 2 – List of buildings covered by fixed network operators (2)

- To implement the withdrawal of Type II interconnection on a building-by-building basis, the TA requested 4 fixed network operators to report the **buildings to which its self-built customer access networks have been connected**, with a view to publishing a consolidated building list for public's information.
- One of the requested operators was reluctant to submit the information.
- After giving due opportunity to such operator to make representations and considering such operator's representations, the TA issued a direction to such operator under section 36B of the Telecommunications Ordinance requiring it to provide the information.

Case Study 3 – QoS

Performance Indicators (1)

- In 2005, the Authority announced a programme to address consumer concern on quality of service (QoS) through publication of **technical and service performance data** for each operator.
- Some operators raised objection that the data to be published could be wrongly interpreted by consumers as the Authority's endorsement of some networks over the others, thereby distorting the competitive market situation.

Case Study 3 – QoS

Performance Indicators (2)

- Survey was performed in 2006 about consumers' perception on residential broadband services with a view to identifying and correcting any deficit in the availability of information where consumers need to make an informed choice.
- The Authority has initiated dialogue with operators
 - How adequate information is considered to be important to the consumers ?

Case Study 3 – QoS

Performance Indicators (3)

- The Authority's preferred approach is that necessary information, such as statistics on service and technical performance, should be published by operators themselves.
- The Authority will discuss with operators about definitions of the performance indicators and how the information should be audited and published.

Lessons (1)

- Operators have concern that
 - Some data are commercial sensitive information and they might be misused by third parties if they are released by the regulator
 - Significant efforts are required to provide the necessary data to the regulator
 - The disclosed data may be used by the regulator in other occasions which may jeopardise their positions

Lessons (2)

- The regulator collects many types of data to carry out its functions and duties, but it needs to decide
 - Whether the data should be published for public interest ?
 - What form should the data be published ?
 - The period and method of data collection to minimise administrative workload for both the regulator and the industry
 - How the accuracy and relevance of the data can be ensured ?

**Communication and cooperation
between the regulator and industry
are prerequisite to success !**

Thank You

For further information, please
visit the website of OFTA

<http://www.ofta.gov.hk>

or email to
webmaster@ofta.gov.hk