For discussion on 13 November 2017

Legislative Council Panel on Information Technology and Broadcasting

Computerisation Projects under New Administrative Computer Systems

Introduction

This paper seeks Members' support for the computerisation projects proposed for implementation in 2018-19 under New Administrative Computer Systems.

Background

2. Computerisation projects can be broadly classified as follows -

(a) Administrative computer systems and related studies

The primary objective of this type of projects is to deliver the strategic outcome of the action area "Enabling the next generation of public services" under the Digital 21 Strategy. Currently, the required project expenditure is charged to the Capital Works Reserve Fund ("CWRF") Head 710 Computerisation -

(i) Projects costing above \$10 million each – these projects are subject to the approval of the Finance Committee ("FC") of the Legislative Council and are to be funded under separate subheads of CWRF Head 710. The subject bureaux / departments ("B/Ds") are responsible for submitting funding proposals to FC and monitoring project delivery;

(ii) Projects costing above \$200,000 but not exceeding \$10 million each – these projects are funded through a block allocation under CWRF Head 710 Subhead A007GX ("Block Allocation"). The Financial Secretary has delegated to the Government Chief Information Officer ("GCIO") the power to approve projects and authorise expenditure under the Block Allocation; and

(b) Projects costing \$200,000 or below each

These projects are approved by the relevant B/Ds and funded through their respective operational expenses subheads under the General Revenue Account.

Guiding Principles to be Observed in Proposing New Computerisation Projects

- 3. In proposing new computerisation projects for the following financial year, B/Ds are required to observe the following guiding principles -
 - (a) support the implementation of e-Government strategies in managing and using information and communications technology ("ICT");
 - (b) integrate e-Government into their overall business plans to enhance business benefits and as a fundamental part of their service delivery approach;
 - (c) embrace a citizen-centric culture and adopt customer relationship management principles and best practices in the delivery of public services;
 - (d) build in service transformation and business process re-engineering in all organisation / business reviews;
 - (e) proactively identify opportunities for joining up services across departmental boundaries, take ownership of these projects and account for their performance / benefits;

- (f) rationalise service delivery channels and encourage customers to migrate to the most efficient, user-friendly and cost-effective channels; and
- (g) support the development of Hong Kong into a world-class smart city.
- 4. Each year, the Office of the Government Chief Information Officer ("OGCIO") estimates the funding requirements for the Block Allocation in the following financial year by taking into consideration the cash flow requirements of approved block vote projects, new proposals submitted by B/Ds, anticipated new projects for various e-Government initiatives to be submitted, and the spending position of the Block Allocation. To ensure optimal utilisation of the Block Allocation, OGCIO will require owners of individual projects to review the project schedule based on the latest project progress on a half-yearly or quarterly basis, in order to calculate realistic cash flow requirements. This arrangement will avoid unnecessary locking up of funds by individual projects and enable OGCIO to deploy funds to meet the requirements of other urgent or high priority projects.
- 5. OGCIO will also monitor and manage the use of the approved funds to ensure due adherence to prevailing government policies and relevant legislation, and the proper delivery of the desired outcomes. To ensure that the Government's investment can attain its intended objectives in a timely and cost-effective manner, B/Ds have to submit to OGCIO a Post Implementation Departmental Return ("PIDR"), setting out the achievements made or the reasons for any deviation from the original objectives, budget or schedule of the project, within six months after the live-run of a system or completion of a study / programme. The aggregated result of PIDRs is published in the Controlling Officer's Report of OGCIO as Government-wide performance indicators. A summary of the project performance reported in 210 PIDRs in 2016 is as follows -

	No. of	Percentage achieved	
Performance indicators	with target achieved with deviation		
Completed within budget	210	0	100.0%
Met agreed specifications	210	0	100.0%
Completed on schedule	141	69	67.1% ^(note)
Achieved intended benefits	206	4	98.1%

Note: For projects not completed on schedule, the main causes of delay include longer than expected time for conducting user requirement studies, system design and procurement, as well as quality of contractors' deliverables not meeting requirements.

Funding Requirement for 2018-19

- 6. Taking into account the proposals submitted by B/Ds and our forecast of other projects to be initiated in the coming financial year, we estimate that a Block Allocation of about \$1,060 million will be required under CWRF Head 710 Subhead A007GX for 2018-19. The proposed allocation is about \$70 million (about 7.1%) higher than the provision of \$990 million for 2017-18. A breakdown of the expenditure items for 2017-18 and 2018-19 is at Annex A. The proposed Block Allocation will enable the Government to make effective use of information technology ("IT") to improve services and operational efficiency, as well as to strengthen system security.
- 7. The estimated cash flow requirements of projects initiated / to be initiated in or before 2017-18, as well as new projects to be initiated in 2018-19, are at $\underline{\mathbf{Annex}\ \mathbf{B}}$. These new projects can be broadly classified

into the following categories –

(a) e-Government services

The Government is committed to speeding up the pace and rate of adoption of IT to enhance the delivery of public services and transform internal operation, in order to meet the public expectation for better services, bring more convenience and better quality of life to the community, and facilitate the development of a smart city. recent years, a number of online services have been launched by government departments. Some well-known examples include the online services of Hong Kong Public Libraries (Leisure and Cultural Services Department), the electronic declaration service (Customs and Excise Department), the Weather Wizard (Hong Kong Observatory) and various online services of the Immigration Department and the Transport Department. These electronic services enhance user experience and internal operation efficiency by saving the manual effort for data entry and validation. Examples of new projects and the related departments are -

- (i) Enhancement of Online Document Submission Portal of e-Submission System (Student Finance Office of Working Family and Student Financial Assistance Agency);
- (ii) Food Traders Portal and e-Submission of Food Import Applications (Centre for Food Safety of Food and Environmental Hygiene Department); and
- (iii) e-Submission of Licence Application (Office of the Licensing Authority of Home Affairs Department).

(b) Public sector information, big data and artificial intelligence

With the advancement of ICT, more and more application developers are making use of public sector data and information to develop innovative applications. To facilitate the public to select the required information, the "data.gov.hk" portal began to provide various Application Programming Interfaces ("APIs") since the end

of last year. There are currently more than 1 000 APIs available to cater for different applications. We are also enhancing the "data.gov.hk" portal by providing more geo-tagged information (i.e. showing the geographical location of the data on digital maps) on the portal to facilitate the public to develop more applications and services by using public sector information. In doing so, we aim to promote innovation, open up new business opportunities for enterprises and bring greater convenience to the public. Moreover, the Government will further make use of big data analytics and artificial intelligence technology to enhance public services, strengthen cyber security, streamline decision-making process and boost operational efficiency. This is to enhance city management, improve people's quality of living and promote the development of smart city. Examples of new projects and the related departments are -

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- (i) Map Application Programming Interface for Internet (Lands Department);
- (ii) Cyber Risk Information Sharing Platform (OGCIO); and
- (iii) Revamp of 1823 Website and Implementation of Chatbot Service (Efficiency Unit).

(c) Enhancing internal operational efficiency

Apart from the provision of public services, B/Ds have also developed and implemented various computer systems to enhance internal operational efficiency and productivity, create a greener environment, and address growth in business demands. Examples of new projects and the related departments are -

- (i) Design and As-built Data Management System (Survey and Mapping Office of Lands Department);
- (ii) Electronic Training Materials Storage System for Hong Kong Police College (Hong Kong Police Force); and

(iii) Redevelopment of Senior Citizen Card Computer System (Social Welfare Department).

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(d) System technology refresh

System technology refresh is an on-going process to address the obsolescence of system hardware and software, as well as to leverage the new features / functionality of advanced technology. Mission-critical IT systems will need to be timely replaced or upgraded to ensure sustainability of service delivery. The Government will adopt cloud computing to enhance agility and efficiency in meeting the growing demand of B/Ds on IT resources. Examples of new projects and the related departments are -

- (i) Upgrade of Air Cargo Clearance System (Customs and Excise Department);
- (ii) Upgrade of Vehicle Registration Marks System (Transport Department); and
- (iii) Upgrade of School Dental Care Service Management and Information System (Department of Health).

(e) <u>Strengthening IT security</u>

In view of the increasing number and complexity of cyber security threats, B/Ds have put much emphasis on the security of their IT systems and data as well as the cyber security risk. B/Ds will enhance data protection and conduct regular security risk assessments and audits on IT systems for compliance with IT security policies and implementation of effective preventive measures against security threats and cyber attacks on the Government's IT systems. Examples of new projects and the related departments are -

(i) Strengthening Information Security Management of Employment Service System (Labour Department);

(ii) Upgrade of IT Security Infrastructure and Strengthening Cyber Threat Protection (Environmental Protection Interactive Centre of Environment Protection Department); and

(iii) Strengthening Information Security Management of Electronic Cargo Manifest Gateway and Backend System (Commerce and Economic Development Bureau).

A list of the 254 new projects to be initiated in 2018-19 is at **Annex C**.

Advice Sought

8. Members are invited to support the computerisation projects proposed for implementation in 2018-19 under New Administrative Computer Systems.

Innovation and Technology Bureau
Office of the Government Chief Information Officer
November 2017

Annex A

Breakdown of the expenditure items in 2017-18 and 2018-19 for the Block Allocation

	2018-19	2017-18			
Category of Expenditure	Proposed Block Allocation (\$M)	Approved Block Allocation (\$M)	Difference (\$M)	Percentage of Difference (%)	
1. Hardware	238	202	+36	+17.8	
2. Software	166	151	+15	+9.9	
3. Implementation Services	373	363	+10	+2.8	
4. Contract Staff	166	161	+5	+3.1	
5. Contingency	67	66	+1	+1.5	
6. Others	50	47	+3	+6.4	
Total:	1,060	990	+70	+7.1	

Annex B

Tentative cash flow requirements of the projects to be funded under the proposed Block Allocation in 2018-19

	No. of projects	Tentative cash flow requirements in 2018-19 (\$M)
Projects initiated / to be initiated in or before 2017-18	541	817
New projects to be initiated in 2018-19	254	243
Total:	<u>795</u>	<u>1,060</u>

Annex C

New projects to be initiated in 2018-19

Item <u>no.</u>	Project name	Project estimate (\$M)	Planned start date in 2018-19	Planned end date
	Administration Wing			
1	Strengthening Cyber Threat Protection and	6.6	Q1	Q1/2019-20
	Information Security Management			
2	Upgrade of Network Infrastructure and Wireless	3.0	Q1	Q1/2019-20
	Internet Services (Central Government Offices)			
3	Upgrade of Operating System and Office	6.1	Q1	Q3/2019-20
	Automation Facilities			
4	Upgrade of Application Infrastructure	7.1	Q1	Q4/2019-20
5	Website Revamp	0.6	Q1	Q1/2020-21
6	Migration of Client - Server Applications to Web	1.0	Q2	Q3/2019-20
	Platform			
	Agriculture, Fisheries and Conservation			
	<u>Department</u>			
7	Upgrade of Email System and Software Asset	9.1	Q1	Q4/2019-20
	Management System			
8	Upgrade of Laboratory Information	4.6	Q2	Q2/2020-21
	Management System			
9	Upgrade of Country Park Development	5.7	Q3	Q2/2020-21
	Monitoring System			
10	Upgrade of Herbarium Data Management	4.9	Q3	Q3/2020-21
	System			
11	Upgrade of Red Tide Monitoring System	4.9	Q3	Q4/2020-21
	Architectural Services Department			
12	Technical Study on Strengthening Information	2.8	Q1	Q1/2019-20
	Security Management			
13	IT Security Risk Assessment and Audit	0.3	Q1	Q2/2019-20
14	Upgrade of Operating System	9.9	Q1	Q4/2019-20
15	Upgrade of Knowledge Management System	9.9	Q1	Q1/2022-23

Item no. 16	Project name Technology Refresh for Human Resources Management Information System	Project estimate (\$M) 9.8	Planned start date in 2018-19 Q2	Planned end date Q4/2020-21
	Auxiliary Medical Service			
17	Upgrade of Email System, Office Automation	6.7	Q1	Q3/2019-20
	Software and IT Infrastructure			
18	Implementation of Web Portal for Volunteer Members and Cadet	2.0	Q1	Q3/2019-20
	Census and Statistics Department			
19	Revamp of Inventory System	2.9	Q1	Q4/2018-19
20	Upgrade of Operating System and Office	9.9	Q2	Q2/2019-20
	Automation Facilities			
	Chief Executive's Office			
21	Upgrade of Operating System and Office	4.1	Q2	Q3/2019-20
	Automation Facilities			
	Chief Secretary for Administration's Office			
22	Implementation of Digital Repository	9.9	Q1	Q4/2018-19
	(Government Records Service)			
23	Consultancy Study on Preservation Policy and	7.2	Q1	Q1/2020-21
	Strategies of Government Electronic Records			
	and Archival Records in Electronic Form			
	Civil Aid Service			
24	Upgrade of Operating System and Email	9.9	Q1	Q3/2019-20
	System			
	Civil Aviation Department			
25	Upgrade of Operating System and Office	6.0	Q1	Q3/2019-20
	Automation Software			
	Civil Engineering and Development Department			
26	IT Security Risk Assessment and Audit	0.7	Q1	Q1/2019-20
27	Enhancement of Geographic Information	7.1	Q1	Q4/2019-20
	System			

Item no.	Project name	Project estimate (\$M)	Planned start date <u>in 2018-19</u>	Planned end date
28	Strengthening Cyber Threat Protection and IT	1.4	Q2	Q4/2018-19
	Security Infrastructure			
29	Upgrade of Operating System (Headquarters	8.9	Q2	Q3/2019-20
	Offices)			
30	Upgrade of Operating System (Outstation	7.3	Q3	Q3/2019-20
	Offices)			
	Civil Service Bureau			
31	Upgrade of Operating System	9.9	Q1	Q4/2019-20
32	Upgrade of Network Equipment (Offices at	9.1	Q1	Q3/2020-21
	Central Government Offices and Queensway			
22	Government Offices)	0.0	01	01/0001 00
33	Programme Management - Implementation of	8.8	Q1	Q1/2021-22
24	New e-Leave System	0.0	02	01/2010 20
34	Upgrade of Medical and Dental Benefits	0.8	Q2	Q1/2019-20
25	Eligibility Checking Workstations Development of a Projection System	1.0	02	02/2010 20
35	Development of e-Registration System	1.0	Q2	Q2/2019-20
36	IT Security Risk Assessment and Audit	0.5	Q2	Q4/2019-20
	Commerce and Economic Development Bureau			
37	IT Facilities for Special Duties Team for	0.8	Q1	Q3/2018-19
	Implementation of New Regulatory Regime of			
	Travel Industry			
38	Upgrade of Email System, Office Automation	8.5	Q1	Q1/2019-20
	Facilities and IT Infrastructure (Communications		_	
	and Creative Industries Branch)			
39	Upgrade of e-Messaging System for Overseas	3.5	Q1	Q1/2019-20
	Hong Kong Economic and Trade Offices			
40	Upgrade of Office Automation and IT Facilities	6.5	Q1	Q3/2019-20
	(Commerce, Industry and Tourism Branch and			
	Overseas Hong Kong Economic and Trade			
	Offices)			
41	Replacement of Network Equipment (Create	1.9	Q2	Q4/2018-19
	Hong Kong)			
42	Upgrade of Operating System and Office	4.7	Q2	Q2/2019-20
	Automation Facilities (Create Hong Kong)			

Item no.	Project name	Project estimate (\$M)	Planned start date in 2018-19	Planned end date
43	Strengthening Information Security	3.3	Q2	Q4/2019-20
	Management of Electronic Cargo Manifest			
	Gateway and Backend System			
44	Upgrade of Proxy Appliance and Firewall	7.1	Q3	Q1/2020-21
	Facilities (Commerce, Industry and Tourism			
	Branch and Overseas Hong Kong Economic			
	and Trade Offices)			
45	Redevelopment of Trade Declaration System	7.0	Q4	Q2/2021-22
	Constitutional and Mainland Affairs Bureau			
46	Upgrade of Email System and IT Facilities	6.9	Q1	Q4/2021-22
	(Hong Kong Economic, Trade and Cultural			
	Office in Taiwan)			
47	Upgrade of Office Automation Facilities and	5.2	Q3	Q4/2020-21
	Network Equipment (Hong Kong Economic			
	and Trade Office in Chengdu)			
48	Upgrade of Office Automation Facilities	2.1	Q4	Q2/2019-20
	(Beijing Office)			
49	Upgrade of Office Automation Facilities (Hong	1.7	Q4	Q2/2019-20
	Kong Economic and Trade Office in Shanghai)			
	Correctional Services Department			
50	Upgrade of Email System	9.7	Q1	Q3/2018-19
	Customs and Excise Department			
51	Strengthening Information Security	7.9	Q1	Q2/2019-20
	Management			
52	Upgrade of Email System	9.7	Q1	Q2/2019-20
53	Upgrade of Patch Management System and	3.8	Q1	Q3/2019-20
	Software Asset Management System			
54	Replacement of Network Equipment	9.7	Q1	Q1/2020-21
55	Upgrade of Air Cargo Clearance System	9.9	Q1	Q1/2020-21
56	Study on Exchange of Cargo Clearance Data	7.7	Q2	Q3/2019-20
	with Cargo Operators under Single Window			
	System			
57	Upgrade of Case Processing Workstations	8.4	Q2	Q3/2019-20

Item	Decided wares	Project estimate	Planned start date	Planned
<u>no.</u> 58	Project name Upgrade of Office Automation Facilities	(\$M) 9.8	<u>in 2018-19</u> Q2	end date Q3/2019-20
59	Upgrade of Central Storage Area Network	9.7	Q2	Q2/2020-21
	Department of Health			
60	Upgrade of Child Assessment Service	2.3	Q1	Q1/2019-20
	Information System and Workstations			
61	Upgrade of Network Infrastructure and	6.0	Q1	Q1/2019-20
	Strengthening Network Security Management			
62	Upgrade of Operating System and Office	5.8	Q1	Q3/2019-20
	Automation Facilities (Dental Service)			
63	Upgrade of Student Health Assessment	5.5	Q1	Q3/2019-20
	Management System and Replacement of			
	Network Equipment			
64	Upgrade of School Dental Care Service	7.1	Q1	Q4/2019-20
	Management and Information System			
65	Upgrade of IT Infrastructure (Centre for Health	8.4	Q1	Q1/2020-21
	Protection)			
66	Revamp of Methadone Treatment Information	9.7	Q1	Q2/2020-21
	System			
67	Technology Refresh for Systems of Family	6.4	Q2	Q3/2019-20
	Health Service			
68	Technology Refresh for Tuberculosis and Chest	6.6	Q2	Q4/2019-20
	Information System			
	Department of Justice			
69	Migration of Client - Server Applications to Web	9.9	Q1	Q4/2019-20
	Platform			
70	Upgrade of Operating System and Office	9.9	Q1	Q2/2020-21
	Automation Software			
	Development Bureau			
71	Upgrade of Email System (Planning and Lands	5.1	Q1	Q3/2018-19
	Branch)			

Item no. 72	Project name Strengthening Cyber Threat Protection and IT Security Infrastructure and IT Security Risk Assessment and Audit (Planning and Lands	Project estimate (\$M) 1.4	Planned start date in 2018-19 Q1	Planned end date Q4/2018-19
	Branch)		0.1	0.1/0.10.00
73	Upgrade of Email System (Works Branch)	5.1	Q1	Q1/2019-20
74	Upgrade of Network Infrastructure (Works	9.0	Q1	Q3/2019-20
	Branch)			
75	Digital Tree Risk Assessment Application	9.9	Q2	Q1/2020-21
76	Upgrade of Office Automation Facilities	6.3	Q3	Q3/2019-20
77	(Planning and Lands Branch) <u>Drainage Services Department</u> Upgrade of Operating System and Office	9.9	Q1	Q3/2019-20
, ,	Automation Facilities	<i>).)</i>	Q1	Q3/2017-20
78 79	Education Bureau Online Submission and Data Management System for Subsidy Schemes (Self-financing Post-Secondary Education) Revamp of Applied Learning System	7.1	Q1 Q1	Q2/2019-20 Q3/2019-20
80	Upgrade of Operating System	8.9	Q1	Q3/2019-20
81	Redevelopment of Student Option Programme	1.4	Q1	Q1/2020-21
82	Enhancement of Website and Web Content	9.8	Q1	Q3/2020-21
83 84	Efficiency Unit Revamp of 1823 Website and Implementation of Chatbot Service IT Security Risk Assessment and Audit and Replacement of IT Facilities for 1823 System	7.3 4.5	Q1 Q2	Q1/2019-20 Q4/2018-19
85	Electrical and Mechanical Services Department Enhancement of Lifts and Escalators Ordinance System	1.8	Q1	Q4/2018-19

Item no.	Project name Environmental Protection Department	Project estimate (\$M)	Planned start date in 2018-19	Planned end date
86	Accounting and Registration System for	9.9	Q1	Q1/2019-20
00	Municipal Solid Waste Charging Scheme	7.7	Q1	Q1/2017 20
87	Upgrade of IT Security Infrastructure and	3.6	Q1	Q1/2019-20
07	Strengthening Cyber Threat Protection	3.0	Q1	Q1/2017 20
	(Environmental Protection Interactive Centre)			
88	IT Security Risk Assessment and Audit	1.4	Q1	Q4/2019-20
89	Upgrade of Operating System and Office	8.5	Q2	Q3/2019-20
0)	Automation Software	0.0	Q2	Q5/2017 20
	Financial Services and the Treasury Bureau			
90	Upgrade of Operating System and Office	1.8	Q2	Q1/2019-20
	Automation Software (Treasury Branch)			
	Food and Environmental Hygiene Department			
91	Feasibility Study and System Analysis and	9.4	Q1	Q4/2018-19
	Design of Food Import Control System			
92	Food Traders Portal and e-Submission of Food	9.9	Q1	Q3/2019-20
	Import Applications (Centre for Food Safety)			
93	Upgrade of Network Infrastructure	9.4	Q2	Q1/2019-20
94	Upgrade of Office Automation Facilities	9.5	Q2	Q1/2019-20
95	Upgrade of Operating System and Office	9.8	Q2	Q3/2019-20
	Automation Software			
	Food and Health Bureau			
96	Upgrade of Office Automation Network	2.4	Q1	Q4/2018-19
	Equipment			
97	Upgrade of e-Health Record Sharing System	2.8	Q1	Q4/2019-20
	Workstations			
98	Strengthening Information Security	9.3	Q1	Q3/2020-21
	Management of e-Health Record Sharing			
	System			
99	Migration of Servers Platform of e-Health	9.4	Q1	Q4/2020-21
	Record Sharing System			
100	Replacement of Network Equipment of e-Health	7.1	Q1	Q4/2020-21
	Record Sharing System			

Item	Port of a const	Project estimate	Planned start date	Planned
<u>no.</u>	Project name	(\$M)	<u>in 2018-19</u>	<u>end date</u>
101	Upgrade of Data Backup Infrastructure of	6.3	Q1	Q4/2020-21
100	e-Health Record Sharing System	7.0	01	04/2020 21
102	Upgrade of Data Storage System of e-Health	7.8	Q1	Q4/2020-21
	Record Sharing System			
	Government Flying Service			
103	IT Security Risk Assessment and Audit	0.4	Q1	Q4/2018-19
104	Upgrade of Network Infrastructure and Server	0.8	Q1	Q3/2019-20
	Equipment			
105	Upgrade of Office Automation Facilities	0.8	Q2	Q1/2019-20
	Government Laboratory			
106	Upgrade of Office Automation Facilities	5.9	Q1	Q4/2019-20
107	Upgrade of Food Database System	1.2	Q2	Q1/2019-20
108	Upgrade of Sample Information Management	3.0	Q2	Q2/2019-20
	System			
100	Government Logistics Department	0.4	0.4	0.4/0.40.00
109	Upgrade of Email System and Office	9.6	Q1	Q4/2019-20
110	Automation Facilities		0.0	0.0.10.00
110	Revamp of Disposal Store System and Quarters	1.6	Q2	Q2/2019-20
	Furniture Inventory System			
111	IT Security Risk Assessment and Audit and	4.9	Q2	Q4/2019-20
	Enhancement of IT Security			
	Government Property Agency			
112	Relocation of IT Facilities to West Kowloon	7.8	Q1	Q1/2019-20
	Government Offices		_	
	Highways Department			
113	Upgrade of Operating System	8.2	Q1	Q3/2019-20
114	Upgrade of Intranet Mapping System	8.1	Q1	Q2/2020-21
	Home Affairs Bureau			
115	Upgrade of Central Personality Index and	5.2	Q1	Q2/2019-20
	Advisory and Statutory Bodies Database System			

Item no. 116	Project name IT Security Risk Assessment and Audit	Project estimate (\$M) 0.9	Planned start date in 2018-19 Q1	Planned end date Q4/2019-20
	Home Affairs Department			
117	Enhancement of Guest List System	5.3	Q1	Q1/2019-20
118	Upgrade of Operating System and Office	9.7	Q1	Q1/2019-20
	Automation Software (District Offices of			
	Kowloon and New Territories Region)			
119	Enhancement of Licence Application Tracking	4.3	Q1	Q4/2019-20
	Information System			
120	Permitted Burial Ground Management System	6.8	Q1	Q4/2019-20
121	e-Submission of Licence Application (Office of	5.1	Q1	Q1/2020-21
	the Licensing Authority)			
122	Upgrade of IT Security Infrastructure and	2.1	Q2	Q4/2018-19
	Strengthening Cyber Threat Protection			
123	Enhancement of Licensing Information Systems	3.6	Q2	Q1/2020-21
	(Amusement Game Centre Licence and			
	Amusements with Prizes Licence)			
	Hong Kong Observatory			
124	IT Facilities for Asian Aviation Meteorological	9.7	Q1	Q4/2018-19
	Centre			
125	Upgrade of Operating System and Office	2.6	Q1	Q2/2019-20
	Automation Facilities			
126	Video Wall Presentation Computer System for	2.9	Q1	Q2/2019-20
	Radiation Monitoring and Assessment Centre			
127	Enhancement of Graphics Weather Presentation	3.2	Q1	Q4/2019-20
	System			
128	Implementation of Office Automation and IT	9.9	Q1	Q1/2020-21
	Infrastructure Management System			
129	Implementation of Corporate Data Architecture -	9.8	Q1	Q2/2020-21
	Central Data Repository			
130	Revamp of Windshear and Turbulence Warning	4.5	Q1	Q4/2020-21
	Computer System			

Hong Kong Police Force

Item		Project estimate	Planned start date	Planned
<u>no.</u>	<u>Project name</u>	<u>(\$M)</u>	<u>in 2018-19</u>	end date
131	IT Facilities for Police Operational Base and	1.9	Q1	Q3/2018-19
	Reporting Centre in Liantang / Heung Yuen Wai			
	Boundary Control Point			
132	Development of Management Information	3.2	Q1	Q1/2019-20
	System for Online Service Providers Record			
	Check			
133	Disaster Victim Post-Mortem Information	7.5	Q1	Q2/2019-20
	System			
134	Electronic Training Materials Storage System for	2.5	Q1	Q2/2019-20
	Hong Kong Police College			
135	Replacement of IT Facilities for Crime Forensics	9.9	Q2	Q3/2019-20
	and Specialist Tools Functions			
136	Upgrade of Operating System for Criminal	9.8	Q2	Q3/2019-20
	Intelligence and Major Incident Management			
	Workstations			
	Immigration Department			
137	Upgrade of Operating System and IT Security	9.9	Q1	Q4/2019-20
	Infrastructure			
120	Independent Commission Against Corruption	1.0	0.1	0.4/0010.10
138	Upgrade of Human Resources Management	1.0	Q1	Q4/2018-19
120	Information System	1.1	0.1	01/0010 00
139	Technology Refresh for Operations Department	1.1	Q1	Q1/2019-20
1.40	Information System	0.5	0.1	02/2010 20
140	Upgrade of Email System	8.5	Q1	Q2/2019-20
141	Upgrade of Operating System and Office	9.9	Q1	Q3/2019-20
	Automation Facilities			
	Information Services Department			
142	Development of Information Management	4.6	Q1	Q3/2018-19
	Foundation		ζ-	Q0/2010 19
143	Upgrade of IT Infrastructure	9.0	Q1	Q3/2019-20
144	Implementation of Central Repository System	9.4	Q3	Q3/2019-20
	and Internal Portal		4 2	20,2017 20
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Item <u>no.</u>	Project name Inland Revenue Department	Project estimate (\$M)	Planned start date in 2018-19	Planned end date
145	Enhancement of Tax Administration	9.8	Q1	Q1/2019-20
	Applications			
146	Upgrade of Office Automation Facilities	9.8	Q1	Q4/2019-20
147	Upgrade of Operating System and Office	9.8	Q1	Q4/2019-20
	Automation Software			
148	Prosecution Case Management System	9.6	Q1	Q1/2020-21
149	Technology Refresh for eTAX	9.9	Q1	Q2/2020-21
150	Strengthening Information Security	6.2	Q2	Q3/2019-20
	Management of Mid-range System and Local			
	Area Network System			
151	Upgrade of Data Entry System	4.8	Q2	Q3/2019-20
152	Upgrade of Government Cash Receipting	9.1	Q2	Q4/2019-20
	System			
153	Enhancement of Workflow Management	9.5	Q2	Q1/2020-21
	System			
154	IT Security Risk Assessment and Audit	0.6	Q3	Q3/2019-20
	Innovation and Technology Bureau			
155	Upgrade of Email System and IT Security Risk	1.5	Q1	Q2/2018-19
	Assessment and Audit			
	Innovation and Technology Commission			
156	Strengthening Information Security	9.9	Q1	Q3/2018-19
	Management			
157	Enhancement of Innovation and Technology	6.9	Q2	Q4/2019-20
	Commission Fund Management System			
158	Upgrade of Operating System and Office	7.3	Q4	Q3/2019-20
	Automation Software			
	Intellectual Property Department			
159	Upgrade of Email System	3.2	Q3	Q2/2019-20
160	Departmental Information Technology Plan	5.5	Q3	Q3/2019-20
	Study			

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Item no. 161	Project name Strengthening Information Security	Project estimate (\$M) 7.1	Planned start date in 2018-19 Q2	Planned end date Q2/2019-20
162	Management Upgrade of Network Infrastructure	7.0	Q2	Q3/2019-20
163	Joint Secretariat for the Advisory Bodies on Civil Service and Judicial Salaries and Conditions of Service IT Security Risk Assessment and Audit	0.2	Q2	Q4/2018-19
164	Labour Department Technology Refresh for Employees' Compensation Computer System and Upgrade of IT Facilities (Employees' Compensation Division)	9.0	Q1	Q2/2019-20
165	Strengthening Information Security Management of Employment Service System	8.3	Q1	Q4/2019-20
166	Technology Refresh for Occupational Safety and Health Management Information System	9.9	Q1	Q1/2020-21
167	Enhancement of Pressure Equipment Information System	3.0	Q2	Q3/2019-20
	Lands Department			
168	Upgrade of Aerial Photo Interpretation System	3.8	Q1	Q4/2018-19
169	Upgrade of Photogrammetric Workstations and Servers	4.1	Q1	Q4/2018-19
170	Upgrade of Email System	6.3	Q1	Q1/2019-20
171	Upgrade of Office Automation Systems and Facilities (Survey and Mapping Office)	7.8	Q1	Q1/2019-20
172	Upgrade of Operating System (Survey and Mapping Office)	9.9	Q1	Q1/2019-20
173	Unmanned Aerial Vehicle and Training Workstations (Survey and Mapping Office)	5.8	Q1	Q4/2019-20
174	Feasibility Study on Integration of 3D Mapping into Land Information System	5.6	Q2	Q4/2019-20

Item	Project name	Project estimate (\$M)	Planned start date in 2018-19	Planned end date
175	Upgrade of Operating System (Lands	8.8	Q2	Q4/2019-20
	Administration Office, Departmental			
	Administration Office and Legal Advisory and			
	Conveyancing Office) (Phase 3)			
176	Map Application Programming Interface for	9.9	Q2	Q1/2020-21
	Internet			
177	Technology Refresh for Mapping System	8.5	Q3	Q1/2020-21
178	Design and As-built Data Management System	8.6	Q3	Q3/2020-21
	(Survey and Mapping Office)			
	Legal Aid Department			
179	Upgrade of Email System	5.7	Q1	Q4/2018-19
180	Upgrade of Operating System	7.5	Q1	Q3/2019-20
181	Departmental Information Technology Plan	9.9	Q1	Q4/2019-20
	Study and Feasibility Study on Revamping Case			
	Management and Accounting System			
182	IT Security Risk Assessment and Audit	0.5	Q3	Q3/2019-20
	Leisure and Cultural Services Department			
183	Upgrade of Swimming Pool Monthly Ticket System	2.5	Q1	Q1/2019-20
184	Upgrade of IT Infrastructure and Workstations of	9.8	Q1	Q2/2019-20
	Leisure Link System			
185	Upgrade of Self-service Sub-systems of Hong	9.1	Q1	Q2/2019-20
	Kong Public Libraries			
186	Enhancement of Annual Sports Activities	8.9	Q1	Q3/2019-20
	System			
187	Upgrade of Email System and Office	9.4	Q1	Q4/2019-20
	Automation Facilities			
188	Upgrade of Operating System for Confidential	9.9	Q1	Q4/2019-20
	Mail System			
189	IT Security Risk Assessment and Audit	2.3	Q1	Q1/2020-21
190	Upgrade of e-Marketing System (Museum	8.7	Q1	Q1/2020-21
	Services)			
191	Upgrade of Revenue Collection Recording	4.9	Q1	Q1/2020-21
	System			

Item no.	Project name	Project estimate (\$M)	Planned start date in 2018-19	Planned end date
192	Upgrade of Reporting Service for Direct	2.5	Q1	Q2/2020-21
	Purchase Authority Management System			
	Marine Department			
193	Upgrade of Departmental Network	9.9	Q1	Q4/2019-20
	Infrastructure			
194	Upgrade of e-Online Interactive Assessment System	4.8	Q2	Q3/2019-20
195	Implementation of Human Resources	3.0	Q2	Q4/2019-20
	Management System			
	Office for Film, Newspaper and Article Administration			
196	Upgrade of Email System and Office	2.2	Q1	Q4/2018-19
	Automation Facilities			
	Office of the Government Chief Information Officer			
197	Government-wide Anti-phishing Campaign	2.5	Q1	Q4/2018-19
198	Replacement of Appliances for Domain Name	1.5	Q1	Q4/2018-19
	Hosting Service			
199	Upgrade of Common Shared Questions and	8.8	Q1	Q4/2018-19
	Answers System for Examination of			
	Government's Annual Estimates and			
	Development of e-File Generation Web-based			
	Sub-system			
200	Digital Inclusion Learning Portal	9.8	Q1	Q1/2019-20
201	Enhancement of Information Security Website	2.2	Q1	Q1/2019-20
202	Enhancement of Network Infrastructure for	9.9	Q1	Q1/2019-20
202	Centrally Managed Email Service	4.0	0.1	01/0010 00
203	Technology Refresh for Multiple Application	4.2	Q1	Q1/2019-20
	Registration Service and Change of Address			
204	Service Cyber Bick Information Shoring Platform	55	02	02/2010 20
204	Cyber Risk Information Sharing Platform Pavious of Covernment IT Security Polated	5.5 3.6	Q2	Q3/2019-20
205	Review of Government IT Security Related Regulations, Policies and Guidelines	3.0	Q2	Q3/2019-20
	regulations, 1 oncies and Outdellifes			

Item no. 206	Project name Upgrade of Central Cyber Government Office Core Network	Project estimate (\$M) 6.8	Planned start date in 2018-19 Q3	Planned end date Q1/2020-21
	Official Receiver's Office			
207	Departmental Information Technology Plan Study	4.9	Q1	Q3/2019-20
208	Upgrade of e-Services System	9.9	Q4	Q2/2020-21
	Planning Department			
209	Upgrade of Network Equipment and IT Security	9.2	Q1	Q4/2019-20
210	Upgrade of Operating System and Office Automation Software	9.9	Q1	Q4/2019-20
	Public Service Commission			
211	IT Security Risk Assessment and Audit	0.2	Q1	Q3/2018-19
	Radio Television Hong Kong			
212	Upgrade of Operating System and Office	8.2	Q3	Q3/2019-20
	Automation Software			
	Rating and Valuation Department			
213	Strengthening Information Security	9.9	Q1	Q4/2019-20
	Management			
214	Implementation of Central Access and Searching Facilities	2.7	Q2	Q2/2019-20
215	Implementation of Single Sign-on Solution	7.0	Q2	Q4/2019-20
216	Upgrade of Integrated Property Database	9.9	Q2	Q1/2020-21
	Registration and Electoral Office			
217	Upgrade of Operating System, Office	8.6	Q1	Q1/2019-20
	Automation Software and Software Asset Management System			
	Security Bureau			
218	Upgrade of Email System	8.0	Q1	Q1/2019-20
219	IT Security Risk Assessment and Audit	0.6	Q2	Q3/2019-20

Item	Project name	Project estimate	Planned start date	Planned ond data
<u>no.</u> 220	Project name Upgrade of Operating System and Office	<u>(\$M)</u> 9.6	<u>in 2018-19</u> Q3	end date Q3/2019-20
220	Automation Facilities	7.0	Q3	Q3/2017-20
	7 Gronautor 1 demues			
	Social Welfare Department			
221	Technology Refresh for Client Information	1.0	Q1	Q4/2018-19
	System			
222	Redevelopment of Senior Citizen Card	5.4	Q1	Q4/2019-20
	Computer System			
223	Feasibility Study on Corporate Management	7.4	Q2	Q3/2019-20
	Information System			
224	Upgrade of Operating System and Office	9.8	Q2	Q3/2019-20
	Automation Software			
225	Redevelopment of Accounting and	5.0	Q3	Q2/2020-21
	Management Information System			
226	Revamp of Volunteer Movement Website	5.7	Q3	Q3/2020-21
227	Upgrade of Departmental Intranet	9.9	Q4	Q3/2020-21
220	Trade and Industry Department	0.7	01	04/2010 10
228	Upgrade of Departmental Portal	0.7	Q1	Q4/2018-19
	Transport and Housing Bureau			
229	IT Security Risk Assessment and Audit	0.4	Q2	Q1/2019-20
	(Transport Branch)			
230	Upgrade of Office Automation Facilities	0.8	Q2	Q1/2019-20
	(Transport Branch)			
231	Website Revamp	2.0	Q2	Q3/2019-20
	Transport Department			
232	Implementation of Identity Management System	0.9	Q1	Q4/2018-19
233	Strengthening Information Security	2.2	Q1	Q3/2019-20
	Management of Vehicles and Drivers Licensing			
	Integrated Information System and Upgrade of			
	Workstations			
234	Upgrade of Operating System and Personal	8.9	Q1	Q4/2019-20
	Computers			
235	Upgrade of Vehicle Registration Marks System	3.6	Q3	Q4/2019-20

Item <u>no.</u>	Project name	Project estimate (\$M)	Planned start date in 2018-19	Planned end date
236	Upgrade of Road Test Process Control System	4.8	Q4	Q1/2020-21
	The Treasury			0.1/20.10.20
237	Implementation of Application Whitelisting Solution	2.2	Q1	Q1/2019-20
238	Upgrade of Education Allowance and Passage System, Government Officers' Advances System, Payroll On-Cost and Staff Cost Ready	9.9	Q1	Q1/2019-20
	Reckoner System and Untaken Leave Liabilities System			
239	Upgrade of Electronic Document Management System	3.8	Q1	Q1/2019-20
240	Strengthening Information Security Management	9.7	Q1	Q3/2019-20
241	Upgrade of Central File Transfer Gateway	8.7	Q2	Q3/2020-21
242	Upgrade of Operating System and Office Automation Facilities	9.9	Q3	Q1/2020-21
243	IT Security Risk Assessment and Audit	2.8	Q4	Q4/2020-21
	University Grants Committee Secretariat			
244	Upgrade of Email System	1.0	Q1	Q2/2018-19
	Water Supplies Department			
245	Development of Online Platform for "Cherish Water Campus" Integrated Education	1.4	Q1	Q2/2019-20
	Programme			
246	Upgrade of IT Security Infrastructure and Strengthening Cyber Threat Protection	9.7	Q1	Q3/2019-20
247	Upgrade of Workforce Management	9.9	Q1	Q4/2019-20
	Sub-system of Customer Care and Billing System			
	Working Family and Student Financial Assistance Agency			
248	Strengthening Information Security	2.9	Q1	Q3/2018-19
	Management (Student Finance Office)		•	-

Item no.	Project name	Project estimate (\$M)	Planned start date in 2018-19	Planned end date
249	Enhancement of Working Family Allowance	7.3	Q1	Q4/2018-19
	Management System			
250	IT Security Risk Assessment and Audit	0.5	Q1	Q4/2018-19
	(Working Family Allowance Office)			
251	Upgrade of Email System, Operating System	6.2	Q1	Q4/2018-19
	and Office Automation Software (Working			
	Family Allowance Office)			
252	Upgrade of Email System and Office	9.9	Q1	Q4/2019-20
	Automation Facilities (Student Finance Office)			
253	Enhancement of Online Document Submission	2.0	Q1	Q1/2020-21
	Portal of e-Submission System (Student Finance			
	Office)			
254	IT Security Risk Assessment and Audit (Student	0.9	Q2	Q2/2019-20
	Finance Office)			