SPECIFIC TERMS FOR "Console Connect IoT" SERVICE

These Specific Terms for the "Console Connect IoT" service (the "**Service**" or "**Console Connect IoT Service**"), which both **PCCW Global** and the **Customer** agree to be bound by, are incorporated into and made a part of the master services agreement and/or other general terms and conditions executed between PCCW Global and the Customer (the "**MSA**"). Capitalized terms used herein and not otherwise defined shall have the meaning set forth in the MSA.

1.   Interpretation

1.1   The following words have these meanings in these Specific Terms:

"Access Point Name"	or "**APN**" is the gateway between a 2G GSM, GPRS, 3G UMTS or 4G LTE network and another computer network.
"Application Programming Interface"	or "**API**" is a set of subroutine definitions, communication protocols, and tools for building software. In general terms, it is a set of clearly defined methods of communication among various components.
"Customer"	means the legal entity that has entered into an MSA with PCCW Global, as more particularly specified in the MSA and relevant Order Form.
"IPSec VPN"	refer to the process of establishing VPN connections using Internet Protocol Security or IPSec protocol for creating a virtual, encrypted link over the unsecured Internet to ensure secure and private communications over Internet Protocol (IP) networks by authenticating and encrypting IP packets between two end points.
"PCCW Global"	means the provider of the Service as specified in the Order Form, including but not limited to PCCW Global Limited or its Affiliate.
"Service"	means the Console Connect IoT Service or any component thereof supplied by PCCW Global to the Customer under this Specific Terms pursuant to an Order Form, and which service and its components are more fully described in Schedule 1 to these Specific Terms.
"Service Coverage"	means the countries or nations where the Service will be provided to Customer and/or Users, as defined in section 2.2 of Schedule 1.
"Service Equipment"	means the equipment (including any software contained in that equipment) owned or controlled by PCCW Global or a Third Party Supplier, which is not Customer Equipment and which is used in connection with the provision of Services to Customer.
"Service Portal"	means the web interface used to access the Service for the purpose of conducting Connectivity Management, as described in Schedule 1 of these Specific Terms.
"SIM Card"	means a subscriber identity module card.
"Software"	has the meaning set forth in clause 6.2 of these Specific Terms.
"Specific Terms"	means these Specific Terms, all documents incorporated herein by reference and all schedules and attachments to these Specific Terms.
"Users"	mean companies, businesses or natural persons who have subscribed to or are authorised by the Customer to use the Console Connect IoT Service.
"Virtual Private Network"	or "**VPN**" means to extend a private network across a public network, and enables Users to send and receive data across shared or public networks as if their computing devices were directly connected to the private network.

2. Term

2.1   The Minimum Contract Period of the Console Connect IoT Service shall be twenty-four (24) months after the applicable Service Commencement Date or as otherwise specified in the Order Form.

2.2   At the end of the Minimum Contract Period, the Service term shall automatically renew for consecutive periods of 3 months each (each a "**Renewed Term**"), unless the other Party gives the other Party written notice of no less than 3 months prior to the last day of the next Renewed Term.

3. Obligations of the Parties

3.1   PCCW Global agrees to provide the Service and the Customer agrees to use the Service and ensure Users use the Service in accordance with the terms and conditions set out in these Specific Terms.

3.2   Subject to the terms of these Specific Terms, PCCW Global shall:

3.2.1   provide a web-based Service Portal and/or API to Customer for the administrative purposes and functions of the Service, as set forth in Schedule 1;

3.2.2   provide to Customer with such technical information and assistance as may be reasonably required to interface with the computer systems of the Customer with the Service platform;

3.2.3   maintain the Service Levels as specified at Schedule 2 hereto; and

3.2.4   provide the maintenance and support services set forth in Schedule 2 hereto, including (but not limited to) handling of complaints and questions received from the Customer in relation to the Service and the mobile application.

3.3   In addition to the Customer's obligations set forth in the MSA, the Customer shall have the following obligations with respect to the Service:

3.3.1   Customer shall use the Service in accordance with these Specific Terms;

3.3.2   Customer shall also ensure Users use the Service in accordance with these Specific Terms;

3.3.3   Customer shall comply with and ensure Users comply with all Applicable Laws including but not limited to all relevant laws, regulations, regulatory conditions and usage restrictions provided for in the applicable regulatory framework as may apply to the Service or any component thereof. If, any time during the term of these Specific Terms, the Customer is informed or any information comes to its attention that the Customer and/or User are or may be in violation of any Applicable Laws, the Customer shall immediately take all appropriate steps to remedy such violation and comply with and ensure Users comply with such Applicable Laws in all respects;

3.3.4   Customer shall access PCCW Global's Network provided in connection with the Service in accordance with the manuals or instructions provided by PCCW Global and/or its Affiliates;

3.3.5   in the event PCCW Global provides Service Equipment to the Customer for its use via the PCCW Global's Service Portal and/or API, the Customer shall use the Service Equipment in accordance with the PCCW Global's manuals and instructions;

3.3.6   the Customer shall be liable for all activities that occur under its account through the use of the Service via the Service Portal and/or API (whether authorised or otherwise) and all related Charges incurred from such activities. The Customer undertakes to inform PCCW Global immediately if the Customer believes or has reason to believe that a third party is or has been using the Service without the Customer's authorisation; and

3.3.7   the Customer shall indemnify and keep the PCCW Global and its Affiliates indemnified from and against any claims by any third party related in any way to the PCCW Global or its Affiliates' processing under these Specific Terms of any data and/or content provided by the Customer.

4. Charges

4.1   In consideration for PCCW Global providing the Service to the Customer, the Customer shall pay PCCW Global the Charges set out in the Order Form in accordance with these Specific Terms.

4.2 Notwithstanding anything contained herein to the contrary, PCCW Global is entitled to invoice the Customer for Services rendered to the Customer or Users and the Customer shall be obligated to make payments to the PCCW Global according to the invoiced amounts as of the Service Commencement Date, except only in cases of Service delivery delays directly attributable to PCCW Global. Delays in implementing the Service or faults attributable to Customer, Users or Third Party Suppliers shall not relieve the Customer of its payment obligations hereunder.

4.3 All fees, charges, costs and expenses for connecting to the software defined interconnection platform of PCCW Global or any other destinations or end points requested by the Customer or Users shall be borne entirely by the Customer.

5. SIM Cards

5.1 SIM Cards, other than the software installed inside the SIM Cards, supplied by PCCW Global to the Customer for the purposes of the Service will be the property of the Customer.

5.2 The Customer is responsible for all Charges incurred by the use of the SIM Cards.

5.3 In the event of loss or theft of the SIM Card, the Customer is responsible for all usage and related Charges connected with the lost or stolen SIM Card until the SIM service is deactivated, either by the Customer itself through the Service Portal or API or through a request to PCCW Global.

6. Equipment and Software

6.1 Customer shall, at its own cost and expense, purchase and deploy Customer Equipment as mutually identified and agreed upon by both parties for the Services.

6.2 The Customer acknowledges that Service Equipment provided by PCCW Global may be embedded with proprietary technology ("**Software**"). Customer shall not obtain title, copyright or any other proprietary right to such Software. At all times, PCCW Global (or its supplier) retains all rights and title to such Software, including but not limited to any updates, enhancements and/or additions to the Software.

6.3 Customer shall use such Software in the manner as expressly authorized by PCCW Global and for the purpose of using the Service. Customer shall not disclose the Software to any Person or convey copy, license, sub-licence, tamper with, or create any derivative work based on the Software.

6.4 The Customer shall work together with PCCW Global to connect the Customer Equipment to Service Equipment provided by PCCW Global in order to enable PCCW Global to transmit data between the Service Equipment and the Customer Equipment.

6.5 The Customer shall promptly notify PCCW Global of any malfunction, failure or other incident resulting in the loss of use of the Service Equipment or where there is a need for repair or maintenance of such equipment.

6.6 Customer assumes all risks in relation to, and shall indemnify PCCW Global from all any liabilities, losses, damages, disputes, offsets, counterclaims, demands, actions, costs, expenses and judgments arising out of the maintenance or use of, or from any loss or damage to, Service Equipment by Customer and /or Users.

7. Consequences of Termination

7.1 Any expiration or termination of these Specific Terms does not affect:

7.1.1 the rights accruing to a Party before expiration or termination; or

7.1.2 any rights and obligations of a Party which survive expiration or termination.

7.2 Upon expiry or termination of these Specific Terms:

7.2.1 Customer shall forthwith cease to advertise or market the Service;

7.2.2 any licences or intellectual property rights granted by a Party to the other Party under these Specific Terms shall automatically terminate; and

7.2.3 each Party shall immediately cease to use the other Party's Confidential Information and (at the other Party's option), irretrievably delete the other Party's Confidential Information in its possession or control to the satisfaction of the other Party.

8. Personal Data Protection

8.1 The Customer shall comply with all Applicable Laws relating to personal data including but not limited to the requirements of the EU GDPR. This clause is in addition to, and does not relieve, remove or replace, the Customer's obligations under the EU GDPR or any Applicable Laws.

8.2 In addition to clause 8.1 above, the provisions of the "GDPR Data Processing Rules for Console Connect IoT Service" (the "**GDPR Data Processing Rules**") will apply in case of any processing of Personal Data of data subjects within the European Union at the time of processing.

8.3 The GDPR Data Processing Rules are incorporated into and made a part of these Specific Terms. Each Party shall comply with their respective obligations under such Rules. The capitalised terms, "EU GDPR" and "Personal Data" mentioned in this clause 8 are defined in the Rules.

Schedule 1
Console Connect IoT Service

1   Service Description

1.1   Console Connect IoT Service Components
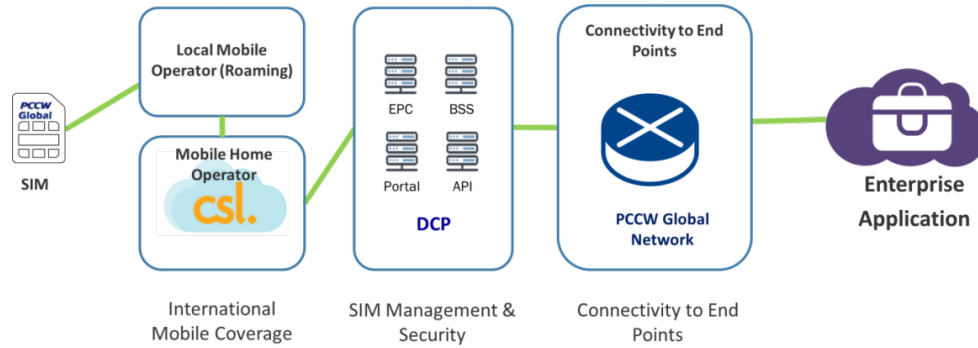
The Console Connect IoT Service comprises three parts:

a)   International mobile data connectivity is provided by:

- PCCW Global's IoT SIM which:
  a.   supports 2G GSM and GPRS, 3G UMTS and 4G LTE Data; and
  b.   is enabled by either a physical SIM or embedded SIM (also called eSIM or eUICC) as specified in the Order Form;
- A mobile home operator in Hong Kong – PCCW Global's Affiliate, CSL Mobile Limited, ("**Home Operator**") and local mobile roaming operators in another country ("**Local Operator**").
  a.   Using international data roaming to support coverage in 100 + countries as specified in the Order Form.

b)   SIM connectivity management providing:

- Self-service service portals with the following functions:
  a.   SIM status control
  b.   Trigger management
  c.   Performance Dashboard overview
  d.   Real time status and traffic monitoring
  e.   Usage report and statistics download

- APIs to perform SIM connectivity management. PCCW Global will provide the Customer a list of standard APIs through its Console Connect IoT Service Portal, which PCCW Global may vary from time to time.

c)   Service Interconnect – Connectivity to end points is available via:

- Internet connectivity

- Secure connection to Cloud or Enterprise Data Center
  a.   IPSec VPN
  b.   Leased line (via PCCW Global's software defined interconnection platform).

1.2 Service Design

The Console Connect IoT Service is designed as follows:

A. Secure

    a. The Service utilizes international mobile roaming utilising the Home Operator's network and agreements with Local Operators.

    b. The Console Connect IoT Service platform is connected by PCCW Global's IPVPN which is operated and managed by PCCW Global under industry's best practice.
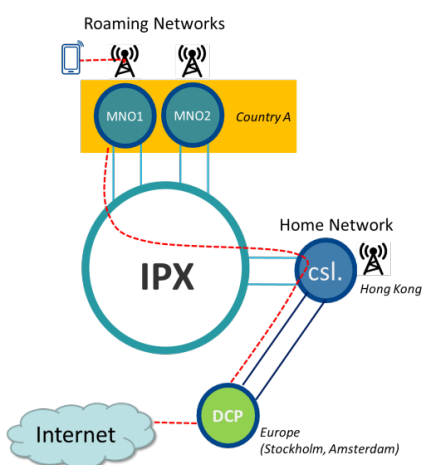
B. Resilient

The general resiliency of the Service is detailed in the table below:

Element	Resiliency
Roaming Mobile Network	Multiple MNOs available in a country unless otherwise specified.
Roaming Mobile Network Connection to IPX	An IPX is a private IP network and is governed by standards set by the GSMA.
csl Mobile Network Connection to IPX	The Home Operator uses more 3 or more multiple IPX providers including PCCW Global.
csl Mobile Network	The Home Operator has 3 mobile core network nodes in 3 different locations in Hong Kong.
Connection to Console Connect IoT Service	PCCW Global utilises private leased lines to connect to the Console Connect IoT Service platform.
Console Connect IoT Service platform	PCCW Global uses two geographically resilient sites.

1.3 General Architecture

The Home Operator receives data from the Local Operator which is normally a mobile network operator ("**MNO**") in Country A.

This general architecture for this service, which is based on mobile roaming, is depicted in the following diagram:

Aspect	Details
Connectivity between MNOs for exchanging roaming traffic over a private IP network.	All roaming traffic between different MNOs is sent over an IPX. An IPX is a private IP network and is governed by standards set by the GSMA.
IPX Resiliency	IPXs are highly resilient. There are multiple IPX providers in the world (including PCCW Global,) that are peered together. Typically an MNO will deploy multiple connections to an IPX. MNOs typically have two IPX providers for additional resiliency.
Connectivity between Home Operator and Console Connect IoT Service platform.	The Console Connect IoT Service platform itself is highly resilient, with two active nodes. The Home Operator is connected to each of the Console Connect IoT Service nodes, with leased lines to each node.

1.4   Customer Specific Service Configuration

Attribute	Description
SIMs quantity and Type	• Physical SIM or embedded SIM (also called eSIM or eUICC). • Quantity for each to be specified in the Order Form.
End user Connectivity Services	Mobile Data (2G, 3G, or 4G) – dependent on country/operator and device utilized by Customer, as determined by PCCW Global to provide the Console Connect IoT Service.
APNs	• Standard APN / Customised APN / Private APN as specified in the Order Form. • Quantity as specified in the Order Form.
Mobile Coverage	Selection of countries from the list and at the Charges specified in the Order Form.
SIM Connectivity Management – Basic	• Ability to manage mobile connections via a self-service portal to start, stop, suspend, terminate a service or switch subscription packages. • Users with individual logins and defined access rights. • Overview of Customer's SIM subscription inventory enable the Customer to view the individual SIM card details. • Ability to view traffic and performance data. • Ability to manage mobile connections via standard APIs available through the Service Portal.
SIM Connectivity Management – additional features	• Maximum of 20 firewall rules per APN including: - Whitelisting/blacklisting of specific destinations - Ability to restrict service based on protocol, IP Address, and Ports - Ability to restrict communications between terminals - Ability to detect changes in devices used by a given SIM and to notify customer and/or disable the SIM's service.
Connectivity to End Points which are specified in the Oder Form	• Internet • IPSEC VPN • Layer 2 Software Defined Connectivity • Lease Line
PCCW Global Service Desk	• 24/7 Availability
Training	• Standard Video conference • Optional On-site training specified in the Order Form which may incur an additional Charge.

2   SIM and Country Service

2.1   Physical SIM

PCCW Global shall supply 64k USIMs.

2.2 Service Coverage List

The Console Connect IoT Service coverage countries are listed below and the country and applicable Service Charge will be specified in the Order Form:

Afghanistan	China	Haiti	Mauritius	Spain
Aland	Colombia	Hawaii	Mexico	Sri Lanka
Albania	Congo	Honduras	Moldova	St. Barthelemy
Algeria	Costa Rica	Hong Kong	Monaco	St. Kitts & Nevis
Anguilla	Croatia	Hungary Iceland	Mongolia	St. Lucia
Antigua	Curacao	India	Montenegro	St. Martin
Argentina	Cyprus	Indonesia	Montserrat Nauru	St. Vincent
Armenia	Czech	Iran	Nepal	State of Vatican City
Aruba	Republic Democratic	Ireland	Netherlands	Suriname
Australia	Republic of the	Isle of Man	New Zealand	Sweden
Austria	Congo	Israel	Nicaragua	Switzerland
Azerbaijan	Denmark	Italy	Niger	Taiwan
Bahamas	Desirade	Jamaica	Nigeria	Tajikistan
Bahrain	Dominica Dominican	Japan	Norway	Tanzania
Bangladesh	Republic East	Jersey	Oman Pakistan	Thailand
Barbados	Timor	Jordan	Palau	The Grenadines
Barbuda	Ecuador	Kazakhstan	Palestine	Tinian
Belarus	Egypt	Kenya	Panama	Tonga
Belgium	El Salvador	Kiribati	Papua New Guinea	Trinidad
Belize	Estonia	Kosovo Kuwait	Paraguay	Tunisia
Bermuda	Faroe Islands	Kyrgyzstan Laos	Peru	Turkey
Bhutan	Fiji	Latvia	Philippines	Turks & Caicos
Bolivia	Finland	Les Saintes	Poland	Uganda
Bonaire	France	Liechtenstein	Portugal	Ukraine
Bosnia &	French Guyana	Lithuania	Puerto Rico	United Arab Emirates
Herzegovina	French Polynesia	Luxembourg	Qatar	United Kingdom
Brazil	French West Indies	Morocco	Romania Rota	United States
British Virgin	Gabon	Mozambique	Russia	Uruguay
Islands	Georgia	Myanmar	Rwanda	US Virgin Islands
Brunei	Germany	Macau	Saipan	Uzbekistan
Bulgaria	Ghana	Macedonia	Samoa	Vanuatu
Cambodia	Gibraltar	Madagascar	Saudi Arabia	Venezuela
Canada	Greece	Malawi	Serbia	Vietnam
Cape Verde	Greenland	Malaysia	Singapore	Zambia
Cayman	Grenada	Maldives	Slovak Republic	Zanzibar
Islands	Guadeloupe	Malta	Slovenia	
Chad	Guam	Marie – Galante	South Africa	
Chile	Guatemala	Martinique	South Korea	
	Guernsey			
	Guyana			

PCCW Global has the right to add and/or remove countries from the list without prior notice to the Customer. The country list will be updated from time to time. Customer is advised to visit the website (www.pccwglobal.com) or contact the Customer's PCCW Global account manager for the latest Service Coverage List. Customer shall be responsible for informing PCCW Global if any change to the Service Coverage List introduces an unfavourable service impact to the Customer.

3   Mobile Connectivity Management Service – SIM Management

The Console Connect IoT Service provides Customer access to the Console Connect IoT Service platform that allows the Customer to view and control their own mobile connectivity using the Console Connect IoT Service Portal or an API.

This section lists the functions available in the Service Portal. A full service guide for the Service Portal and/or standard APIs are available from PCCW Global at the Customer's request.

3.1   Console Connect IoT Service Portal

Customer will be provided a login account for the SIM Management service to access the available functions in the Service Portal outlined below:

Functions	Sub-Function	Details
SIM Inventory	Finding subscriptions	Find subscriptions based on International Mobile Subscriber Identity ("**IMSI**"), label, subscription package, detected International Mobile Equipment Identifier ("**IMEI**"), monthly data usage, fixed IP
	Viewing subscriptions	View subscription details include subscription package, trigger groups, volumes, policy control, and history
	Changing subscription state	Activate, pause, and terminate subscriptions
	Changing subscription package	Change between different available subscription packages (for example subscription packages can be architected so that they only access certain countries; different packages can also have different policy controls (i.e. when a subscription exceeds a certain usage)
	Editing the label	Descriptive label for customer use
	Editing assigned IMEI	Add, change, or delete a specific device associated with the subscription
	Exporting search results	Define specific search criteria for a batch of SIMs (e.g. traffic search by highest usage) and export to a csv file
Operations	Real-time diagnostics	View real time diagnostic information about aggregated subscription traffic and signaling information (location update, session setup, errors). Filter by time, country, network or APN.
	Traffic Statistics	View traffic amounts for selected subscriptions and locations
	Subscription state information	View historical data about the history and state of subscriptions
	Trigger management	View, manage and create trigger groups. Triggers can be used to automate notifications or actions and can eliminate the need to monitor subscriptions manually. Trigger groups can apply to subscriptions on an enterprise or a subscription package level, and include rules that initiate actions if a condition is met. The conditions and the actions are parameters that you can assign to each individual rule included in your trigger group. Trigger groups can be used for fraud prevention, life cycle management, or based on a custom need. Triggers can change subscription packages, deactivate subscription, pause subscriptions, send notifications, or terminate subscriptions.

Reporting	Download reports	Download different types of reports including error reports, traffic reports, invoice reports, incident reports, SIM state details reports, and SIM action details reports.
	Download Usage Data	Download traffic usage reports.
Administration	User Administration	Create, view, and manage users of the portal.
	Role Administration	Create, view, and manage different roles in the portal.

3.2 Console Connect IoT APIs

In addition to the Service Portal, standard APIs for business rule automation by the Customer are also available through the Service Portal.

Standard APIs available include the following, which may change from time to time:

API Functionality	Details
API status	View API status in real time.
Subscription traffic	View traffic and signaling (location update and PDP data) information for resources on the network. Queries based on IMSI or mobile phone number ("**MSISDN**") are available.
Usage data download	Download usage data from the data warehouse.
Realtime trace	Track information real time for a given IMSI.
Subscription management (one or multiple)	• Query SIM resource information based on IMSI. • Change subscription status. • Query of subscription status change. • Query subscription status history. • Request subscription package change. • Request subscription package change by batch. • Query available subscription packages. • Query subscriptions together with trigger packages. • Query subscriptions.
Report download	Download of available reports: • Billing report • Error report • Traffic report • Incident report • SIM action details report • SIM state details report • SIM statistics report • Invoices
Trigger Alarms	Fetch or delete information about triggered alarms.
Trigger package management	Create, change, and delete trigger packages.
Manage trigger package to subscription package	Assign or delete a trigger package to a subscription package.
Query triggers	Query the available triggers.

Schedule 2
Support Services

PCCW Global provides Customers 7x24 support desk service to respond to technical issues and enquiries in accordance with the support service levels ("SLA") as specified in this schedule.

Support Process

Level 1 customer service for end users of the devices will be provided by the Customer.

The Customer will establish a service desk to provide Level 1 service support   to receive, handle, answer and resolve all enquiries and problem reports relating to the Service from Users.

PCCW Global will provide Level 2 support through its 7x24 Network Operation Centre ("NOC"). The NOC is available to the Customer if the Customer's Level 1 service desk requires technical assistance on the Service or assistance on billing related enquiries from Users.

1.   **Software Maintenance and Support Services;**

    a)   Customer support personnel will be trained to carry out initial diagnosis of all reported problems (Tier-1).

    b)   Unresolved issues will be escalated by the Customer's Level 1 service desk to the NOC for resolution (Tier-2).

    c)   Tier 2 level support for software and system problems is based on the following service level Call categories and procedures:
        a.   All service calls or emails will be made to the NOC and will be issued a service ticket.
        b.   All service tickets will be prioritized and managed in accordance with the table below:

Call categories	Definition	Coverage	Access	Response Time	Escalation Time (if problems are not resolved)
Critical	Total/Major system failure or outages	7x24 hours	Phone	1 hour after receiving the call	2 hours from occurrence of problem
Important	Many users are not able to access the system	7x24 hours		3 hours after receiving the call	4 hours from occurrence of problem
Normal	Features related, general configuration enquiries.	Mon-Fri 930-1800	Phone Email	3 hours after receiving the email or call	4 hours from occurrence of problem

For the avoidance of doubt:

•   Critical is defined as a problem resulting in total or major system failure resulting in service outages.
•   Important bugs are defined as problems affecting the service.

**Schedule 3
Packages and Options**

The Console Connect IoT Service consists of the following options:

Attribute	Standard Option	Private/Customized Option
Mobile Coverage	Customized to customer requirement from Service Coverage Country list in Section 2.2 of Schedule 1.	Customized to customer requirement from Service Coverage Country list in Section 2.2 of Schedule 1.
Mobile Technologies Supported	2G, 3G, 4G (dependent on specific operators and countries specified in the Order Form)	2G, 3G, 4G (dependent on specific operators and countries specified in the Order Form)
Mobile Device IP Address	Public or Private (specified in the Order Form)	Public or Private (specified in the Order Form)
APN Type	Common	Private/Customized
Private APN	Shared with other customers	For customer use only
Connectivity Type	Internet only	Customer choice: • Internet • Leased line (via PCCW Global's software defined interconnection platform) • IP-Sec VPN
Security Rules available	Mobile to mobile filtering	Mobile to mobile filtering Customized firewall rules available based on: • IP address • Port • Domain name • Protocol
Support	Standard support as specified in Schedule 2	Standard support as specified in Schedule 2
Console Connect IoT Service Portal **(SIM Management Portal)**	Included	Included
Console Connect IoT APIs **(SIM Management APIs)**	Included	Included
SIM Card Type	Physical	Physical
SIM Card Quantity	As specified in the Order Form	As specified in the Order Form