STARHUB'S SERVICE SPECIFIC TERMS & CONDITIONS

INTERNET CLEAN PIPE SERVICE

These are our Service Specific Terms & Conditions for the Internet Clean Pipe Service and together with any other terms and conditions that you and we have agreed or accepted from time to time, they form the Agreement between you and StarHub.

1.   **How you may be Eligible for the Service**

1.1   In order to subscribe to the Service, you must:

      1.1.1   have an existing subscription of StarHub's Business Internet Service subscription; and

      1.1.2   not have, at the time of application of the Service, any outstanding accounts with us that are due and owing to us.

1.2   We do not provide standalone Service and will only be offer and make available the Service to you concurrently with our IP Transit, Enterprise Internet or Switched Ethernet Internet Service.

1.3   We will provide the Service stated in the application form as may be agreed by us from time to time.

1.4   You must, at all times, provide us with such information as may be necessary or desirable for us to provide you with the Service.

1.5   We will not be liable for any Service failure, interruption or performance issues arising from:

      1.5.1   StarHub's Business Internet Service; and/or

      1.5.2   the local or international leased circuit connection.

1.6   We may choose not to accept your application at our discretion.

2.   **Providing the Service**

2.1   In addition to paragraph 1.6 above, we reserve the right not to accept or proceed with your application if:

      2.1.1   the application form submitted by you is not duly completed and signed;

      2.1.2   you fail to provide us with the information as required under paragraph 1.4 above;

      2.1.3   we determine that we are unable to provide the Service due to any of the reasons as stated in paragraph 5.5 below; or

      2.1.4   we discover that (i) you have failed to provide any facility or resource as we may request; or (ii) have not provided them under the operating conditions and specifications stipulated by us for the proper performance of the Service or for the installation, operation and maintenance of the Service.

2.2   When we accept your application form for the Service, we will notify you of the commencement date for the provision of the Service and this date will be known as the ready for service ("**RFS**") date. The RFS date will be stated in our application form. We reserve the right to change the RFS date without liability.

2.3   If we are unable to provide the Service by the RFS date, then you may either:

2.3.1   cancel that part of the Service which we are unable to provide by the RFS date, without being liable to pay any cancellation Charges; or

2.3.2   accept that part of the Service which we are ready to provide, and pay for the same at our prevailing rate(s).

This shall be your sole and exclusive remedy and you shall have no claim against us for our failure to provide the Service by the RFS date. We have no further liability to provide the Service by the RFS date.

2.4   If you request to defer the provision of the Service to a date after the RFS date we originally agreed to, you will be liable to pay a reservation fee at our prevailing rate(s).

2.5   If you cancel your application for the Service before the RFS date, you shall pay us our prevailing cancellation Charges, which shall be 100% of the recurring subscription Charges for the Minimum Period of Service.

3.   Minimum Period of Service

3.1   The initial Minimum Period of Service for the Service is 12 continuous months (or such other period as may be agreed by us and stated in the application form) from the commencement date as determined in accordance with paragraph 4.1 below. Upon the expiry of the initial Minimum Period of Service, the Service will be renewed automatically on a monthly basis unless either party gives the other party at least 30 days' written notice of termination prior to the expiry of the then current period.

3.2   In computing whether or not you have fulfilled the Minimum Period of Service, any period for which the Service is suspended or ceased will not be counted. If the Service is suspended or ceased and subsequently reactivated, the Minimum Period of Service will be automatically extended by such period of suspension or cessation.

3.3   If we agree to any changes to the Service as requested by you (including any upgrade to the Service) or the renewal of the Service, we are entitled to require the Minimum Period of Service to be re-commenced from the date the Service is changed or renewed.

4.   Duration of Service

4.1   The Service under this Agreement will commence on the RFS date as notified by us to you in accordance with paragraph 2.2 above.

4.2   This Agreement will continue until terminated according to the provisions of this Agreement.

5.   Scope of the Service

5.1   We will provide the Service to you according to the particulars set out in the application form. We shall not be responsible if any of the particulars provided by you in the application form is incorrect, false and/or incomplete.

5.2   You may request us to change, from time to time, the Service particulars set out in the application form, subject to our written agreement and your payment of the prevailing administrative fee chargeable by us. If there is such change, the subscription Charges payable and the Service particulars will be amended accordingly. For the avoidance of doubt, you will continue to be liable for the payment of such revised subscription Charges pursuant to paragraph 8.1 below.

5.3   The Service depends on the interconnection between your network and our Network via the local and/or international leased circuit connection (as may be applicable). However, the Service does not include the provision of our local and international leased circuit connection. You shall be solely

responsible at your own cost and expense (i) to procure and maintain the local and/or international leased circuit connection subscription (as may be applicable) with us; and (ii) for providing all equipment, hardware, software, and power supply necessary to connect to and use the Service.

5.4   In addition, you acknowledge and agree that unless we otherwise agree in writing, we are not responsible for providing any support, whether technical or otherwise, to any of your networks which are connected to or used in conjunction with the Service.

5.5   You acknowledge and agree that availability of the Service is subject to:

5.5.1   availability of resources, including network availability and our area of coverage at the time at which the Service is requested or delivered;

5.5.2   geographic and technical capacity of the Network and of our delivery systems at the time at which the Service is requested or delivered; and

5.5.3   provisioning time for the Service. Such provisioning time will be determined or changed by us in our discretion without liability to you.

5.6   If you have opted for and subscribed to our Unmanaged Service, we reserve the right to immediately stop any ongoing mitigation initiated by you, if any, with or without notice to you, if we determine in our absolute discretion that such mitigation will or may affect the Service's infrastructure, StarHub IP Backbone and/or the Network. We will not be liable to you or any third party for the foregoing.

5.7   If you have opted for and subscribed to our Managed Service, you consent to us performing mitigation of any DDoS Attack with or without notice to you. We shall not be responsible under any circumstances to you and/or any third party for any losses, damages, claims or other liabilities (including failure, delay, disruption or interruption in service, or loss of data) which may arise from performing the mitigation and/or relating to the mitigation.

5.8   We may, in our absolute discretion and without notice to you, trigger a 'blackhole' if necessary to prevent any harm or imminent harm (such as interruption, disruption, congestion, signal leakage and/or any Unauthorised Act) to the Network or the networks of third parties.

5.9   Your mitigation profile for the standard Managed Service will be configured based on two sets of detection engines:

5.9.1   Profiled Router Detection (to monitor bandwidth using dynamic baseline and severity thresholds); and

5.9.2   Host Detection (to monitor layer 3 and 4 protocols based on preset threshold settings).

5.10   We will monitor your internet circuit LAN IP following the subscribed internet circuit configuration.

5.11   We will enable Profiled Router Detection with Automatic Rate Calculation as the default setting.

5.12   We will enable Host Detection based on recommended default settings.

5.13   For Static Customers, Managed Objects will be created based on the range of public IP Addresses assigned by us.

5.14   For BGP Customers, Managed Objects will be created based on the range of public IP Addresses in the BGP Hearing Sheet provided by you.

5.15   One Managed Object per StarHub internet service identification number will be created.

5.16   Login Accounts (applicable to standard Service):

5.16.1   You will be provided a default username 488xxxxxxx for each Service identification number.

5.16.2   The portal access is based on read-only access.

5.16.3   You may approach StarHub Business Helpdesk on any requests for additional accounts if required.

6.   Using the Service

6.1   You are responsible for ensuring your applications, equipment, hardware, software and networks meet the minimum system requirements of the Service as we may determine from time to time, and that they are compatible and may properly function and inter-operate with the Service. We will not be liable for any Service or network failure or performance issues resulting from non-compliance with such requirements.

6.2   You must ensure that all applications, equipment, hardware, software or networks connected to or used with the Service are connected and used in accordance with:

6.2.1   all applicable instructions, safety and security procedures applicable to the use of such applications (or as the case may be, equipment, hardware, software or networks); and

6.2.2   all instructions, notices and directions as we may determine from time to time.

6.3   The Service may not be compatible with certain applications, equipment, hardware, software or networks. We will not be responsible for any failure, disruption or interference in the Service or such applications, equipment, hardware, software or networks which may arise from your use of the Service in conjunction with such applications, equipment, hardware, software or networks.

6.4   In addition to paragraphs 6.1 to 6.2 above, you must obtain our prior written approval before connecting the Service to any private or public network whatsoever or making any changes to your network configuration.

6.5   Any IP addresses allocated by us to you in connection with the Service will remain our sole property and you will have no right or title to such addresses. We reserve the right to withdraw or change any of such IP addresses at any time.

6.6   We may, at any time and without any notice to you, temporarily suspend the Service for operational reasons such as repair, maintenance, upgrade or improvement of the Service or because of an emergency. We will restore the Service as soon as reasonably practicable. We may also modify the Service in order to keep pace with the prevailing demands and technological developments, at our discretion and without any notice to you. We will not be liable to you or any third party under this paragraph 6.6.

7.   Your Responsibilities

7.1   You agree that:

7.1.1   you must provide accurate and complete particulars/information to us and such particulars/information will be set out in the application form;

7.1.2   you are solely responsible for initiating the mitigation of any and all attacks via the Service (if you have subscribed to our Unmanaged Service);

7.1.3   you are solely responsible for determining the severity of the attack and how and when to use the Service to address the same (if you have subscribed to our Unmanaged Service);

7.1.4 auto-trigger email alerts on detected anomalies are subjected to your internet connectivity and network condition such as router processing capability, etc. (if you have subscribed to our Unmanaged Service);

7.1.5 we may, at our discretion, reserve the right to implement Access Control List (ACL) filtering or blackhole the victim IP as a last resort if the attack volume is significantly degrading the backbone network;

7.1.6 you will reasonably cooperate with us in respect of any fault investigation pertaining to the Service or DDoS Attacks; and

7.1.7 the amount of clean traffic generated (maximum up to port size) depends on the outcome of your mitigation efforts made via the Service, and we will not be liable to you or any third party under any of paragraphs 7.1.1 to 7.1.6 above.

7.2 You shall cooperate with us in all aspects of the Service, including providing us with the name(s) of a point of contact for the Service.

7.3 You shall ensure that only you or your designated users will access the Service and that you and all your users shall not share tokens, user IDs or other methods for accessing the Service with individuals who are not the designated users of the tokens provided by us. You further agree to notify us of the designated user of each user ID and token provided with the Service. You shall promptly notify us of any changes to any of the designated users who have been assigned a token and/or user ID.

7.4 You shall not disclose, copy, disseminate, redistribute, or publish any portion of the Service to any other party. Reproduction of the Service in any form or by any means is forbidden without our prior written permission, including:

7.4.1 information storage and retrieval systems;

7.4.2 recordings and re-transmittals over any network (including any local area network);

7.4.3 using in any timesharing, service bureau, bulletin board or similar arrangement or public display;

7.4.4 posting any portion of the Service to any other online service (including bulletin boards or the Internet); or

7.4.5 sublicensing, leasing, selling, offering for sale or assigning the Service to another entity or user.

7.5 You shall ensure that you and your users' use of the Service will comply with the written and electronic instructions for use of the Service Portal.

7.6 You shall ensure that only you or your designated users will access the Service and that you and your designated users shall not share the user IDs or other methods for accessing the Service with individuals who are not so authorised. You will notify us of the designated user of each user ID provided with the Service. You shall promptly notify us of any changes to any of the designated users assigned to a user ID.

7.7 You shall be solely responsible for determining the configuration of and how and where to use the Service Portal views and reporting features The portal views and reporting features of the Service are intended to provide you with information that will be helpful in optimising and otherwise managing its network and the Service purchased from us.

7.8   You shall be the owner and controller of any data collected via the portal views and reporting features. We shall be acting only as a data intermediary and/or data processor in relation to such information.

7.9   You shall be responsible either for:

    7.9.1   taking all relevant procedural steps to ensure that viewing and using the portal views and reports is in compliance with applicable local laws; or

    7.9.2   ensuring that the portal views and reports are not used in countries where this is not permitted.

7.10   You shall cooperate with us in all aspects of the Service, including providing us information regarding any changes to your network, in order to assist us in the analysis and examination of your NetFlow Traffic Data.

7.11   You acknowledge and understand that if you do not fulfil your obligations or provide the necessary information as provided in this Agreement, then the Service may be degraded or we may not be able to provide the Service to you.

7.12   You shall provide us with a list of customer IP addresses connected to StarHub IP Backbone that you wish to have subject to the Clean Pipe monitoring system that is part of the Services, and immediately notify us of any additions or deletions to such list throughout the term of this Agreement.

7.13   You shall provide us with the names of 3 of your points of contact and related contact information. You shall use your best efforts to ensure that the listed contact persons shall be contactable at all times so that such person can be notified of the mitigation.

7.14   You must immediately notify us of any event that you become aware or suspect would cause significant traffic pattern changes in your network that is being monitored under the Clean Pipe monitoring system that is part of the Services.

7.15   You must immediately notify us if you reasonably believe that you are under a DDoS Attack and you cannot initiate the mitigation via Service Portal due to any circumstances (if you have subscribed to our Unmanaged Service).

8.   Paying for the Service

8.1   You are liable to pay a recurring subscription Charge for the Service at the prevailing prescribed rate(s). You will be billed in advance for the subscription Charge at monthly intervals or such intervals as we may decide.

8.2   Billing and payment disputes that may be raised by you will be treated in accordance with our Business General Terms & Conditions.

9.   Additional Charges

9.1   There will be additional Charges:

    9.1.1   for work or Service performed outside our normal working hours;

    9.1.2   for expedited request of the Service (subject to our prior written approval); and

    9.1.3   if the Service requested by you is provided at greater cost than what we would normally incur.

In these cases, we will notify you of the additional Charges before the work and/or Service.

9.2   If you report a fault and either no fault is found or we determine that the fault is not due to our Network, installation or configuration, then you must:

9.2.1   pay us a fee for the fault report at our prevailing rate; and

9.2.2   reimburse us for all other costs (including labour and transport charges) incurred by us for attending to your request.

9.3   Any request for relocation of the Service is subject to paragraph 5.5 above and to our absolute discretion. If we relocate any Service, you must pay us our prevailing relocation Charges.

10.   **Liability**

10.1   The Service (including any installation or support Service) is provided on an "as is" and "as available" basis. You agree that you use the Service or rely on any Content obtained through the Service at your sole risk. To the fullest extent allowed by the law, we do not give any assurances, guarantees, or warranties, either express or implied, in relation to such Service or Content. In addition, we will not be liable for any delay or failure to provide the Service, or any interruption or degradation of the Service quality which may arise from any of the following:

10.1.1   an act or omission of an underlying carrier, Service Provider, vendor or other third party;

10.1.2   equipment, network or facility failure;

10.1.3   equipment, network or facility upgrade or modification;

10.1.4   force majeure events such as acts of God, acts of nature, strikes, fire, war, riot, acts of terrorism and governmental actions;

10.1.5   equipment, network or facility shortage;

10.1.6   equipment or facility relocation;

10.1.7   service, equipment, network or facility failure caused by the loss of power to you;

10.1.8   any act or omission by you or any person using the Service provided to you or Equipment provided to you;

10.1.9   any third party's service, equipment, software, network or facility; and/or

10.1.10   any other cause that is beyond our control, including a failure of or defect in any equipment, the failure of an incoming or outgoing communication, and the inability of communications to be connected, completed, or forwarded.

10.2   Specifically, we do not warrant:

10.2.1   that the Service, the Software or any equipment (which we provide to you, including the Equipment) will not cause any harm to your applications, equipment, hardware, software, networks or Content;

10.2.2   the accuracy, reliability or quality of any Content obtained through the Service or that defects in any Software will be corrected; and

10.2.3   that the Service and access to it is error-free, secure, uninterrupted, or available at all times.

10.3   Except as set out in this Agreement, we expressly exclude all other liability we may have to you, including all liability in contract, tort, negligence, misrepresentation, strict liability or statute. This

exclusion applies for our benefit and that of the Service Providers whose networks are connected to each other or to the Network, all companies, directly or indirectly owned, wholly or partly owned or controlled by us or any of these parties, and all their officers, employees, contractors and agents or anyone else to whom we or these parties are responsible ("**the Relevant Parties**") and whether it relates to anything caused by or resulting from anything we and/or any of the Relevant Parties do or omit or delay in doing (even if done, omitted or delayed fraudulently, wilfully, recklessly, maliciously or negligently), whether or not it is contemplated or authorised by any agreement you have with us.

10.4   Neither we nor any of the Relevant Parties is liable for any special, incidental, indirect, consequential or punitive damages, losses, costs or expenses, or any loss of profits, revenue, business and/or anticipated savings, even if caused fraudulently, wilfully, recklessly, maliciously or negligently.

10.5   If any of the exclusions set out in paragraphs 10.3 and 10.4 above do not apply, our aggregate liability in any 12-month period will not exceed the preceding 3 months' Charges received by us for the Service.

10.6   The relevant Affiliate and/or Service Provider providing the Services or carrying out the actions set out in this Agreement shall be responsible for its acts or omissions.

11.   **Ending and Suspending the Service**

11.1   In addition to the rights either party may have against the other party under this Agreement for any antecedent breach of this Agreement and subject to the provisions of this paragraph 11, this Agreement or the Service hereunder may be terminated by either party giving at least 30 days' written notice to the other party.

11.2   If you give us notice that ends during the applicable Minimum Period of Service, you must immediately pay us the early termination Charges equivalent to the aggregate of the monthly recurring Charges for the remainder of the unfulfilled Minimum Period of Service.

11.3   If the Service or this Agreement is terminated pursuant to paragraph 11.4 or 11.5 below, you will compensate us for any damages or losses we may suffer because of the termination. In addition, if such termination occurs during the applicable Minimum Period of Service, you have to pay us the sums referred to in paragraph 11.2 above.

11.4   In the event of any of the following:

11.4.1   you breach any of the terms and conditions of this Agreement or any other agreement you have with us;

11.4.2   you become or are likely to become bankrupt or insolvent, or die;

11.4.3   you make any arrangement or composition with or assignment for the benefit of your creditors or go into either voluntary or compulsory liquidation or a receiver, trustee, judicial manager or administrator is appointed over any of your assets;

11.4.4   the equivalent of any of the events referred to in paragraphs 11.4.2 and 11.4.3 above under the laws of any relevant jurisdiction occurs to you;

11.4.5   you provide incorrect, false, inaccurate or incomplete information to us;

11.4.6   the requirements of any relevant regulatory authority result in us having to stop providing the Service or to provide the Service in a manner which is unacceptable to us;

11.4.7   we believe you are likely to create imminent harm (such as interruption, disruption, congestion, signal leakage and any Unauthorised Act) to our Network or any third party's

networks or systems or our provision of the Service, or defraud us, or are likely to create imminent harm or harass or are abusive to our personnel; or

11.4.8   for any reason beyond our control (including loss of any licence, way-leave or easement, requirements of any governmental or regulatory authority or orders by the court and cessation or failure to deliver by a third party supplier) we are unable to provide the Service,

we may suspend or terminate all or any part of the Service or terminate this Agreement with 7 working days' notice (for paragraphs 11.4.1 and 11.4.5 above) or with immediate effect (for paragraphs 11.4.2, 11.4.3, 11.4.4, 11.4.6, 11.4.7 and 11.4.8 above) in each case without compensation to you, and without prejudice to our rights to damages for any antecedent breach by you of this Agreement. You may immediately contact our business helpdesk or our account manager to tell us why such suspension or termination should not occur. We will consider each case and where we deem appropriate, will not proceed with the suspension or termination of such account or take any other appropriate action where necessary.

11.5   If we suspect that you are using or allowing the Service to be used for fraud, misconduct or any other illegal or improper purpose, we will refer this to the relevant authorities and comply with directions or guidelines issued by them, without notice or reference to you.

11.6   If and when you make good any breach or default, we may restore any suspended or terminated Service after you have paid for any reinstallation, restoration or re-connection Charges and reimbursed us for our reasonable costs in suspending or terminating the Service.

11.7   If the Service is terminated, all sums due, accruing due or payable to us in respect of the Service, up to the date of termination (including late payment Charges) will, upon the termination, become immediately due and payable to us.

11.8   In addition to paragraph 11.6 above, we reserve the right to charge you our prevailing reactivation Charges for restoring any suspended Service. Restoration of any Service is subject to our absolute discretion.

11.9   The termination of this Agreement will not affect any accrued rights or remedies of either party against the other party.

12.   Other Legal Matters

12.1   Conclusiveness of Records

12.1.1   In the absence of fraud or manifest error, subject to paragraph 2.3.4 of our Business General Terms & Conditions, all of our records relating to the Service are conclusive evidence of their accuracy and completeness.

12.2   Changes to this Agreement

12.2.1   We may from time to time change any of these Terms & Conditions and/or any other applicable terms and conditions for the Services you subscribe for. We may also from time to time withdraw, suspend, or change any of the Services. We will try, where we reasonably can, to give you advance notice of such changes, and we will notify you of such changes in writing or via our website, or such other form as we may decide. The display of the revised terms and conditions on our website will constitute notice of the changes and your continued use of the Services will be taken as acceptance thereof.

12.3   Confidentiality

12.3.1   In addition to paragraph 13.10 (Confidentiality) of our Business General Terms & Conditions, you shall not disclose to any person any information relating to the Service including the

Service ID(s) and password(s), software or equipment which you obtain from us or our third party supplier. This restriction will not apply to any information which is or becomes publicly available otherwise than through a breach of your obligation.

12.4 Matters beyond our Control

12.4.1 We will not be liable for any delay or failure in performance under this Agreement resulting from matters beyond our control. These include acts of God, requirements of any governmental or regulatory authority, war, national emergency, accident, fire, lightning, equipment failure, computer software or Software malfunction, electrical power failure, faults, interruption or disruption of the Network or the networks of other Service Providers or of your equipment or the equipment of any third party, riots, strikes, lock-outs, industrial disputes (whether or not involving our employees), epidemics of infectious diseases or acts of terrorism.

12.4.2 In addition to paragraph 12.4.1 above, we will not be liable for any delay or failure in performance of the Service under this Agreement resulting from any delay or failure of any third party (including any supplier) to deliver or provide any facilities, infrastructure, equipment or Service to us. When this happens, we will not be responsible for any interruption or disruption of the Service or if you cannot access or use the Service.

12.5 Meanings

This paragraph 12.5 sets out how certain words and phrases are used in this Agreement. Terms used but not defined in these Service Specific Terms & Conditions shall have the respective meanings given to them in the Business General Terms & Conditions.

What these words mean in this Agreement

12.5.1 **"Alerts"** means notification via email or pager of IP Traffic Anomalies or IP Threats that, in our opinion, require immediate action by you, to mitigate or to monitor for possible defensive action.

12.5.2 **"Attack Mitigation Equipment"** is the denial of service detection equipment and the data scrubbing equipment located on our premises and used in connection with the Service provided to you by us.

12.5.3 **"Attack Mitigation Capability"** is the level of scrubbing capacity purchased by you from us. We will use our commercially reasonable efforts to provide adequate scrubbing or mitigation capacity to support the defined attack size.

12.5.4 **"Automatic Rate Calculation"** means our calculation based on rate settings that you configure and the last 30 days of a managed object's or the Service's actual traffic.

12.5.5 **"BGP"** shall have the meaning set out in paragraph 12.5.6.

12.5.6 **"BGP Customers"** refer to customers which only have Border Gateway Protocol (**"BGP"**) enabled in their network environment.

12.5.7 **"BGP Hearing Sheet"** is the form which allows customers to request for their new prefixes or IP addresses to be announced to us.

12.5.8 **"DDoS Attack"** means a distributed Denial of Service Attack directed towards your IP addresses connected to StarHub IP Backbone that, in our reasonable judgment, cause us to believe that your network may be compromised by being inundated with nefarious or bogus data traffic, thereby denying service to your systems connected to StarHub IP Backbone.

12.5.9 **"Denial of Service Attacks"** are traffic based attacks which, if not scrubbed, are likely to materially disrupt Internet access and examples of such attack types are set out in the non-exhaustive Table A below.

12.5.10 **"Host Detection"** means our monitoring of the IPv4 and IPv6 traffic to a host on all monitored StarHub routers.

12.5.11 **"Internet Control Message Protocol"** (**"ICMP"**) means the TCP/IP protocol used to report network errors and to determine whether a computer is available on the network. The ping utility uses ICMP.

12.5.12 **"IP"** shall have the meaning set out in paragraph 12.5.24.

12.5.13 **"IP Threat"** refers to data traffic across StarHub IP Backbone such as viruses, buffer overloads, DDoS Attacks or other traffic, that may potentially disable, interrupt or degrade single or multiple connection(s) to StarHub IP Backbone.

12.5.14 **"IP Traffic Anomaly"** refers to data traffic across StarHub IP Backbone that has a pattern or characteristic recognised by us as warranting investigation.

12.5.15 **"Managed Objects"** are administrator-configured network resources that the Service uses to sort, filter, and store traffic and flow data. Managed Objects define what the Service protects.

12.5.16 **"Managed Service"** shall have the meaning set out in paragraph 12.5.21.

12.5.17 **"NetFlow Traffic Data"** means a sample of your data traffic on StarHub IP Backbone used to identify and mitigate DDoS Attack(s).

12.5.18 **"Profiled Router Detection"** means our identification of traffic rates on the StarHub router that exceed expected levels for the configured circuit with this Service.

12.5.19 **"RFS"** shall have the meaning set out in paragraph 2.2.

12.5.20 **"Right"** refers to our right to black-hole the victim's IP as last resort in case the attack volume is significantly degrading the backbone network and/or exceeded the support defined attack size.

12.5.21 **"Service"** refers to the Internet Clean Pipe Service provided by StarHub for StarHub Business Internet Customers (**"you"**). The Service may be either managed (Managed Clean Pipe Standard or Managed Clean Pipe Premium – **"Managed Service"**) or unmanaged (**"Unmanaged Service"**) depending on what you have subscribed to.

12.5.22 **"Scrubbing Device"** means the equipment used by us to isolate and mitigate a DDoS Attack.

12.5.23 **"Service Portal"** is the portal provided to you to monitor and mitigate a DDoS Attack on your network. You will select the IP address range designated by you for mitigation. You are responsible for starting and stopping traffic scrubbing via commands on the portal.

12.5.24 **"StarHub IP Backbone"** is defined as the StarHub-owned and operated Internet Protocol (**"IP"**) infrastructure, identified as AS4657 and that includes certain StarHub Business Internet service points of presence.

12.5.25 **"Static Customers"** refer to customers which only have static IP enabled in their network environment.

12.5.26 **"the Relevant Parties"** shall have the meaning set out in paragraph 10.3.

12.5.27 **"Traffic Anomaly Detection"** means our identification of IP Traffic Anomalies directed at a defined set of customer IP addresses on StarHub IP Backbone.

12.5.28 **"Unmanaged Service"** shall have the meaning set out in paragraph 12.5.21.

12.5.29 **"you"** shall have the meaning set out in paragraph 12.5.21.

Table A

Attack Type	Description
Spoofed	Sending packets with a forged source address
Malformed	Sending packets with abnormal bits or flags set
Floods	Sending high rates of legitimately formed packets
Null	Sending packets with no content or illegitimate protocol
Protocol	Sending packets with illegitimate protocol
Fragmented	Sending packets fragments that will never be completed
Brute Force	Sending packets that exceed defined flow rates threshold