

**COMCAST ENTERPRISE SERVICES
PRODUCT-SPECIFIC ATTACHMENT
DDoS MITIGATION SERVICE**

ATTACHMENT IDENTIFIER: DDoS Mitigation Service, Version 1.2

The following additional terms and conditions are applicable to Sales Orders for Comcast's DDoS Mitigation Service:

DEFINITIONS

Capitalized terms not otherwise defined herein shall have the meaning ascribed to them in the General Terms and Conditions.

"**Estimated Availability Date**" means the target date for delivery of Service.

"**Service(s)**" means Comcast DDoS Mitigation Service.

ARTICLE 1. SERVICES

This attachment shall apply to Comcast's DDoS Mitigation Service. A further description of the Service is set forth in **Schedule A-1** hereto which is incorporated herein by reference.

ARTICLE 2. PROVIDER

Service shall be provided by Comcast Business Communications, LLC.

ARTICLE 3. PROVISIONING INTERVAL

Following its acceptance of a Sales Order, Comcast shall notify Customer of the Estimated Availability Date applicable to that Sales Order. Comcast shall use commercially reasonable efforts to provision the Services on or before the Estimated Availability Date; provided, however, that Comcast's failure to provision by said date shall not constitute a breach of the Agreement.

ARTICLE 4. SERVICE COMMENCEMENT DATE

Comcast shall inform Customer when Service is available and performing in accordance with the "Technical Specifications" set forth in Schedule A-1 hereto ("Availability Notification"). Charges for Service shall begin to accrue as of the Service Commencement Date. The Service Commencement Date shall be earliest of: (A) the date on which Customer confirms receipt of and concurrence with the Availability Notification; (B) five (5) business days following the date of the Availability Notification, if Customer fails to notify Comcast that the Service does not comply materially with the Technical Specifications (defined in Article 7); or (C) the date on which Customer first uses the Service. In the event that a Service Term has

not been expressly set forth in a Sales Order, the Service Term for such Sales Order shall be twelve (12) months.

ARTICLE 5. SERVICE REQUIREMENTS

- A. Notwithstanding anything to the contrary contained herein (including, but not limited to, Articles 6.3, 6.4 and 6.5), in order to provide the Service at a Service Location, (i) the Service Location must have Comcast Ethernet Dedicated Internet Service ("Underlay EDI Service"), which must be ordered from Comcast and may be pre-existing or ordered in conjunction with the Service and (ii) the Service and the applicable Underlay EDI Service (i.e., the applicable EDI circuit) must have the same bandwidth capacity. The Service is provided on a per circuit basis. For the purposes of an example only, if Customer has two EDI circuits each at a different Service Location and desires to have the Service with respect to both circuits, it will be required to order the Service with respect to each circuit and each ordered Service will constitute a separate Service for the purposes of the agreement.
- B. Customer acknowledges and agrees that charges may begin to accrue with respect to Underlay EDI Service and the Service at different times. For the avoidance of doubt, charges will begin to accrue with respect to the Underlay EDI Service in accordance with the PSA applicable thereto.

**ARTICLE 6. TERMINATION CHARGES;
PORTABILITY; UPGRADES**

6.1 The charges set forth or referenced in each Sales Order have been extended to Customer in reliance on the Service Term.

6.2 Termination Charges.

- A. Subject to Section 6.2(B) and (C), in the event that Service is terminated on or following the Service Commencement Date but prior to the end of the applicable Service Term, Customer shall pay Termination Charges equal to a percentage of the monthly recurring charges remaining for the unexpired portion of the then-current Service Term, calculated as follows:
- i. 100% of the monthly recurring charges with respect to months 1-12 of the Service Term; plus
 - ii. 80% of the monthly recurring charges with

- respect to months 13-24 of the Service Term; plus
- iii. 65% of the monthly recurring charges with respect to months 25 through the end of the Service Term; plus
- iv. 100% of any remaining, unpaid non-recurring charges.

Termination Charges shall be immediately due and payable upon cancellation or termination and shall be in addition to any and all accrued and unpaid charges for the Service rendered by Comcast through the date of cancellation or termination.

B. Termination Charges shall not apply to Service terminated by Customer as a result of Comcast's material and uncured breach in accordance with the General Terms and Conditions.

C. Customer acknowledges and agrees that termination of the Underlay EDI Service shall constitute a termination of the Service and Customer shall pay Termination Charges with respect to the Service as provided herein; provided, that, (i) if Customer terminated the Underlay EDI Service as a result of Comcast's material and uncured breach in accordance with the General Terms and Conditions or (ii) the Underlay EDI Service is terminated by either party on or after the expiration of the initial Service Term applicable to the Underlay EDI Service, then Customer will not be obligated to pay Termination Charges with respect to the Service.

6.3 Portability. Customer may terminate an existing Service (an "Existing Service") and turn up a replacement Service (*i.e.*, activate Service with termination points on Comcast's network that are different than those of the Existing Service) (a "Replacement Service") without incurring Termination Charges with respect to the Existing Service, provided that: (a) the Replacement Service must have monthly recurring charges equal to or greater than the monthly recurring charges for the Existing Service; and (b) Customer submits a Sales Order to Comcast for the Replacement Service within ninety (90) days after termination of the Existing Service and that Sales Order is accepted by Comcast.

6.4 Bandwidth Upgrades. Customer may upgrade bandwidth of an Existing Service without incurring Termination Charges, provided that: (a) the upgraded Service (the "Upgraded Service") must assume the remaining Service Term of the Existing Service, but in no event less than twelve (12) months; (b) the Upgraded Service must have the same points of termination on Comcast's network as the Existing Service; (c) Customer submits a Sales Order to Comcast for the Upgraded Service and that Sales Order is accepted by Comcast; (d) Customer pays Comcast's applicable nonrecurring charges for the upgrade; and (e) Customer agrees to pay the applicable monthly

recurring charges for the Upgraded Service commencing with the upgrade.

6.5 Subscription Changes. As further described in Schedule A-1 attached hereto, the Service is available to Customer on an emergency basis, incident-based subscription basis or an unlimited subscription basis. If Customer has the Unlimited Subscription Service or the Incident-Based Subscription Service (each as defined in Schedule A-1), Customer may change to the other subscription service (e.g., if Customer has the Unlimited Subscription Service it may switch to the Incident-Based Subscription Service) without incurring Termination Charges; provided, that, the new subscription service (the "New Subscription Service") must assume the remaining Service Term of the Existing Service, but in no event less than twelve (12) months; (b) the New Subscription Service must have the same points of termination on Comcast's network as the Existing Service; (c) Customer submits a Sales Order to Comcast for the New Subscription Service and that Sales Order is accepted by Comcast; (d) Customer pays Comcast's applicable nonrecurring charges for the upgrade; and (e) Customer agrees to pay the applicable monthly recurring charges for the New Subscription Service.

ARTICLE 7. TECHNICAL SPECIFICATIONS; SERVICE LEVEL AGREEMENT

The technical specifications applicable to the Service are set forth in Schedule A-1 hereto ("Technical Specifications"). The service level agreement applicable to the Service is set forth in a Schedule A-2 hereto and incorporated herein by reference.

**COMCAST ENTERPRISE SERVICES
PRODUCT-SPECIFIC ATTACHMENT
DDoS MITIGATION SERVICES**

**SCHEDULE A-1
SERVICE DESCRIPTIONS AND TECHNICAL SPECIFICATIONS
COMCAST DDoS MITIGATION SERVICES**

Comcast's DDoS Mitigation Service will be provided in accordance with the service descriptions and technical specifications set forth below.

Service Descriptions

DDoS Mitigation Service ("DDoS Service").

The DDoS Service is a managed security service that includes threat mitigation functionality to respond to certain types of distributed denial of service ("DDoS") attacks, including volumetric and flood attacks. The DDoS Service is available to Customer on an emergency, incident-based subscription or unlimited subscription basis, all of which require Customer to have Comcast provided EDI Underlay Service at the applicable Service Location which has the same bandwidth capacity as the DDoS Service.

1. Emergency DDoS Mitigation Service ("Emergency Service")

- A. Upon notification of suspicious traffic from Customer, Comcast will analyze traffic for anomaly detection and patterns to determine whether the business is under a DDoS attack. In performing this analysis, Comcast will gather the appropriate network information (e.g., routable IP addresses). When authorized by Customer via the execution of a Sales Order, which will include relevant fees, Comcast will redirect Customer's incoming Internet traffic to Comcast scrubbing centers where malicious traffic matching specific attack vectors will be filtered and legitimate traffic will be re-routed back to Customer's network.
- B. For those Customers receiving the Emergency Service, applicable charges shall apply with respect to each Mitigation Incident. With respect to Emergency Services, a "Mitigation Incident" is defined as one (1) twenty-four (24) hour window in which Comcast provides Customer with DDoS mitigation assistance as set forth above regardless of whether Comcast provides such assistance for the full twenty-four (24) hours or less than twenty-four (24) hours. Customer acknowledges and agrees that Comcast will discontinue mitigation efforts upon the expiration of each Mitigation Incident unless instructed by Customer to continue mitigation efforts, which Customers may do by contacting the Comcast Security Assurance Team at 877-215-5529. Each twenty-four (24) hour period in which Comcast provides mitigation assistance shall constitute a separate Mitigation Incident subject to additional charges. For illustrative purposes only, if Comcast provides mitigation assistance (i) for twenty-four (24) or fewer hours, there will have been one Mitigation Incident, (ii) for thirty (30) hours, there will have been two Mitigation Incidents and (iii) for forty-nine (49) hours, there will have been three Mitigation Incidents.

2. Unlimited Subscription DDoS Mitigation Service ("Unlimited Subscription Service")

- A. The Unlimited Subscription Service is a subscription-based Service offering that provides Customer with proactive network detection of DDoS attack traffic, alert notifications, and mitigation of attacks. Upon receipt of complete and accurate Customer contact and network information, Comcast will configure Customer's site(s), related IP addresses, and countermeasure options. Following Comcast's completion of such configuration, the parties will conduct an on-boarding call during which Customer will conduct an acceptance test to confirm that the DDoS Service is configured in accordance with Customer's preferences after activation and to verify the operation of DDoS Service.
- B. Comcast monitors the Customer network traffic and will automatically drop or rate limit Layer 3 and Layer 4 traffic at the closest peering edge router using filtering rules. If Comcast detects DDoS attack traffic after applying such filtering rules, an alert will be sent to Customer via email and/or SMS notifying Customer that mitigation is required. During the mitigation, Comcast will leverage Border Gateway Protocol (BGP) to route any traffic that is not filtered to Comcast scrubbing centers where malicious traffic will be filtered and legitimate traffic will be routed back to

Customer's network. After mitigation is terminated, all traffic is directed back to Customer's network via normal paths.

- C. Customer has a choice of On-Demand or Automatic mitigation options under the Unlimited Subscription Service:
- a. On-Demand. Customer must authorize Comcast by phone to initiate mitigation. Time to mitigate (the "Mitigation Interval") is the elapsed time from when the customer authorizes Comcast to enable mitigation until Comcast initiates mitigation of any attack traffic. Mitigation ceases when attack traffic is no longer detected.
 - b. Automatic. With the Automatic mitigation option, no Customer intervention is required. Comcast's scrubbing platform automatically initiates mitigation when an alert is generated due to the detection of attack traffic exceeding pre-set thresholds. The Mitigation Interval is the elapsed time from when the alert is generated to when Comcast initiates mitigation of any attack traffic. Mitigation ceases when attack traffic is no longer detected.

3. Incident-Based Subscription DDoS Mitigation Service ("Incident-Based Subscription Service")

- A. The Incident-Based Subscription Service is a subscription-based Service offering that provides Customer with proactive network detection of DDoS attack traffic, alert notifications, and mitigation of attacks. Upon receipt of complete and accurate Customer contact and network information, Comcast will configure Customer's site(s), related IP addresses, and countermeasure options. Following Comcast's completion of such configuration, the parties will conduct an on-boarding call during which Customer will conduct an acceptance test to confirm that the DDoS Service is configured in accordance with Customer's preferences after activation and to verify the operation of DDoS Service.
- B. Comcast monitors the Customer network traffic and will automatically drop or rate limit Layer 3 and Layer 4 traffic at the closest peering edge router using filtering rules. If Comcast detects DDoS attack traffic after applying such filtering rules, an alert will be sent to both the Comcast operations center and the Customer via email and/or SMS notifying Customer that mitigation is required. Customer must authorize Comcast by phone to initiate mitigation (i.e. On-Demand) and the Mitigation Interval shall be the elapsed time from when the customer authorizes Comcast to enable mitigation until Comcast initiates mitigation of any attack traffic. Comcast will continue its mitigation efforts until instructed by Customer to terminate mitigation. During the mitigation, Comcast will leverage BGP to route any traffic that is not filtered to Comcast scrubbing centers where malicious traffic will be filtered and legitimate traffic will be routed back to Customer's network. After mitigation is terminated, all traffic is re-directed back to Customer's network via normal paths.
- C. For those Customers receiving the Incident-Based Subscription Service, additional charges (in addition to the monthly recurring charges (MRC)) shall apply with respect to each Mitigation Incident. With respect to the Incident-Based Subscription Service, A "Mitigation Incident" is defined as one (1) twelve-hour (12) hour window in which Comcast provides Customer with DDoS mitigation assistance as set forth above regardless of whether Comcast provides such assistance for the full twelve (12) hours or less than twelve (12) hours. Customer acknowledges and agrees that Comcast will discontinue mitigation efforts upon the expiration of each Mitigation Incident unless instructed by Customer to continue mitigation efforts, which Customers may do by contacting the Comcast Security Assurance Team at 877-215-5529. Each twelve (12) hour period in which Comcast provides mitigation assistance shall constitute a separate Mitigation Incident subject to additional charges. For illustrative purposes only, if Comcast provides mitigation assistance (i) for twelve (12) or fewer hours, there will have been one Mitigation Incident, (ii) for fifteen (15) hours, there will have been two Mitigation Incidents and (iii) for twenty-five (25) hours, there will have been three Mitigation Incidents.

4. Disclaimer. Customer acknowledges the following additional terms for the DDoS Mitigation Service

- A. NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED HEREIN, WHILE COMCAST CAN PROVIDE DETECTION AND NOTIFICATION OF DDOS ATTACKS WITH RESPECT TO IPv6, COMCAST DOES NOT SUPPORT, AND SHALL HAVE NO OBLIGATION TO PROVIDE, MITIGATION WITH RESPECT TO IPv6.

- B. When Customer Internet traffic is traversing Comcast mitigation platform, Comcast makes no guarantees that only DDoS attack traffic will be prevented from reaching the Service Location nor that only legitimate traffic will be allowed to reach Customer.
- C. Comcast mitigation constitutes only one component of Customer's overall security program and is not a comprehensive security solution; instead the DDoS Mitigation Service is intended to mitigate the impacts of certain types of DDoS attacks that are already underway.
- D. Comcast makes no warranty, express or implied, that: (i) all DDoS attacks will be detected (for Customers receiving a Subscription Service); (ii) the mitigation efforts implemented by Comcast in response to such DDoS attacks will be successful in mitigating the overall impact of the incident; or (iii) or that Comcast detection, alerting, and/or mitigation will be uninterrupted or error-free. Customer also understands that there may be volumetric-based attacks that exceed the amount of traffic volume that Comcast can successfully divert.
- E. Comcast's ability to provide the DDoS Mitigation Services is contingent on (i) Customer providing accurate and timely information to Comcast, including the provision of IP addresses and (ii) Customer provided equipment and software being compatible with the Service as determined by Comcast in its sole discretion (e.g., Comcast will not be able to provide a 3GB DDoS Mitigation Service if Customer has a 1GB Firewall).

**COMCAST ENTERPRISE SERVICES
PRODUCT-SPECIFIC ATTACHMENT
DDoS MITIGATION SERVICES**

**SCHEDULE A-2
SERVICE LEVEL AGREEMENT**

Comcast's DDoS Mitigation Service is backed by the following Service Level Agreement ("SLA"):

A. Definitions

Capitalized terms not otherwise defined herein shall have the meaning ascribed to them in the DDoS Mitigation Services PSA or the General Terms and Conditions.

"Subscription Service" means, as applicable, the Unlimited Subscription Service or Incident Based Subscription Service.

B. DDoS Mitigation Services - Service Level Agreement

a. Service Delivery Interval

For a customer adding Unlimited Subscription Service or Incident-Based Subscription Service to a new Comcast EDI service, the Subscription Service delivery interval will be the same as the EDI service delivery interval. For a customer with existing EDI service, Comcast will configure and activate Customer's Subscription Service within ten (10) business days of submitting the order for the Subscription Service.

Service Delivery Option	Service Delivery Interval	Remedy
Add Subscription Service to New EDI Service	At time of EDI service delivery	No Credit
	More than twenty-four (24) hours after EDI service delivery	50% of the DDoS Service Activation Fee
Add Subscription Service to Existing EDI Service	Less than or equal to 10 business days	No Credit
	More than 10 business days	50% of the DDoS Service Activation Fee

b. Mitigation Interval

Service	Mitigation Option	Mitigation Interval	Remedy
Emergency DDoS Mitigation	N/A	Less than or equal to 60 minutes	No Credit
		Greater than 60 minutes	One day of Daily Mitigation fee
Unlimited Subscription DDoS Mitigation	On-Demand*	Less than or equal to 15 minutes from Customer authorization	No Credit
		Greater than 15 minutes from Customer authorization	1/30 of DDOS MRC
	Automatic**	Less than or equal to 5 minutes from discovery of attack traffic	No Credit
		Greater than 5 minutes from discovery of attack traffic	1/30 of DDOS MRC
Incident-based Subscription DDoS Mitigation	On Demand*	Less than or equal to 15 minutes from Customer authorization	No Credit
		Greater than 15 minutes from Customer authorization	1/30 of DDOS MRC

*After receipt of Customer's notification of suspicious Internet traffic and Comcast's acceptance of the Sales Order or Customer request, Comcast shall commence On Demand Mitigation within the above stated Mitigation Intervals.

**Upon identification of suspicious Internet traffic by Comcast threat detection platform, Comcast shall commence Automatic Mitigation within the above stated Mitigation Interval.

Customer shall be entitled to up to one credit per day and, for any billing month, Credits may not exceed fifty percent (50%) of the total MRC of the applicable Subscription Service.

In order to receive a Credit for Comcast's failure to meet the DDoS Mitigation SLA detailed above, Customer must open a trouble ticket with Comcast. Customer must request a credit within thirty (30) days following the initial attack event.

B. Exceptions and Terms applicable to all SLAs

Emergency Blocking

The parties agree that if either party hereto, in its reasonable and sole discretion, determines that an emergency action is necessary to protect its own network, the Party may, after engaging in reasonable and good faith efforts to notify the other party of the need to block, block any transmission path over its network by the other party where transmissions do not meet material standard industry requirements. The parties further agree that none of their respective obligations to one another under the Agreement will be affected by any such blockage except that the party affected by such blockage will be relieved of all obligations to make payments for charges relating to the circuit(s) which is so blocked and that no party will have any obligation to the other party for any claim, judgment or liability resulting from such blockage.

Remedy Processes

All claims and rights arising under this Service Level Agreement must be exercised by Customer in writing within thirty (30) days of the event that gave rise to the claim or right. The Customer must submit the following information to the Customer's Comcast account representative with any and all claims for credit allowances: (a) Organization name; (b) Customer account number; and (c) basis of credit allowance claim (including date and time, if applicable). Comcast will acknowledge and review all claims promptly and will inform the Customer by electronic mail or other correspondence whether a credit allowance will be issued or the claim rejected, with the reasons specified for the rejection.

Exceptions to Credit Allowances

Comcast failure to meet the service objectives or the Mitigation Intervals shall not qualify for the remedies set forth herein if such failures related to, associated with, or caused by: scheduled maintenance events; Customer actions or inactions; Customer-provided power or equipment; any third party not contracted through Comcast, including, without limitation, Customer's users, third-party network providers, any power, equipment or services provided by third parties; or an event of force majeure as defined in the Agreement.

Other Limitations

The remedies set forth in this Service Level Agreement shall be Customer's sole and exclusive remedies for any service interruption, Liability, outage, unavailability, delay, or other degradation, or any Comcast failure to meet the service objectives and Mitigation Intervals.