



# SCHEDULE DOCUMENT

## N4PROTECT DDOS SERVICE

PUBLIC  
NODE4 LIMITED  
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# SCHEDULE DOCUMENT

## 1.2 N4PROTECT DDoS

This schedule contains additional terms and conditions, service description & Service Levels applicable to the Node4 Protect DoS Service and should be viewed with associated Order Form, Node4's General Terms and Conditions and the Acceptable Use Policy.

## 2. OVERVIEW

The Node4 N4Protect DDoS service provides the Customer with a managed two-element service to mitigate against DDoS attacks.

### 2.2 APPLIANCE SERVICE N4DDOS+ (PROACTIVE)

The in-line appliance service N4DDOS+ provides a heuristics-based mitigation of application layer DDoS attacks including:

- HTTP-GET Attacks
- HTTP-PST Attacks
- SSL Attacks
- N4DDOS+ also includes N4DDOS Net Scrubbing
- Others

### 2.3 NETSCRUBBING SERVICE N4DDOS (RE-ACTIVE)

The net scrubbing service N4DDOS mitigates volumetric DDoS attacks including:

- TCP SYN Floods \*SYN, SYN ACK, etc.)
- ICMP Flood Attacks (Ping Barrage, Smurf, etc.)
- UDP Flood Attacks (UDP Barrage, Fraggle, Etc.)
- Reflection Attacks
- Others

The NetScrubbing service is activated by Node4 engineers for each N4Protect DDoS customer when a service impacting volumetric attack event is identified (impacting service to that customer or Node4s network). This service is active for the duration of that attack.

## 3. DEFINITIONS

**“Centralised Internet Breakout (CIB)”** a Node4 service providing customers with internet access from the core network with optional resilience.

**“Customer Responsible Faults”** means in the event that a Service Affecting or Non-Service Affecting Fault is identified as being attributable to Customer Provided Equipment, Premises, Customer power supplies, or the action of the Customer, employees or agents of the Customer, the fault shall be deemed the responsibility of the Customer. Any downtime shall not be included in service availability measurements and does not qualify for compensation.

**“DDoS”** – means Distributed Denial of Service

**“Event Fee”** means a charge incurred when a volumetric DDoS attack is mitigated

**“Fault Ticket Number”** means the unique number issued when logging a fault with Node4.

**“Installation Fees”** means charges payable by the Customer for the installation of Services as provided in the Order Form;

**“Monthly Review Period”** means the calendar monthly periods commencing on the 1st of each month during the Term, over which Service performance measurements are calculated, provided that the first Monthly Review Period will commence on Ready For Service Notification;

**“NetScrubbing Service”** means the service provided from the Node4 network core in which a customer's IP range is redirected to a system for the duration of a Volumetric DDoS attack;

**“Network Management System”** means Node4's network integrated fault management system;

**“Node4 Network”** means the network wholly owned and managed by Node4;

**“Non-Service Affecting Fault”** means a fault or condition which is not a Service Affecting Fault.

**“Planned Outage”** means in maintaining the service provided, Node4 may with reasonable notice require a temporary outage in service. Wherever possible Node4 will agree the outage with you in

advance of the required work. Any planned downtime shall not be included in fault or service reliability measurements;

**“Service Affecting Fault (SAF)”** means any failure of Node4 Network, equipment or service, which, in our reasonable opinion causes a loss of a customer’s service. In all such cases the service shall be deemed unavailable and the length of downtime recorded by Node4 from when the fault is registered by Node4 and a fault ticket number allocated.

**“Service Availability”** means the time for which a Node4 service is usable, expressed as a percentage of the total time in a given Monthly Review Period. The Node4 service shall be deemed available for the purposes of calculating Service Availability if it is not usable due to an event outside our reasonable control, a Customer Responsible Fault, a Third Party Attributable Fault or is due to a Planned Outage.

**“Technical Support Centre”** means Node4’s fault management centre, which operates the Node4 Network Management System;

**“Third Party Attributable Faults”** means in the event that a Service Affecting or Non-Service Affecting Fault is identified as being attributable to a third party this measurement period shall not be included in service availability measurements. Such faults do not qualify for rebates or compensation. Node4 will endeavour to resolve and rectify such Third Party Attributable Faults as soon as possible.

**“Time To Resolve Fault (TTRF)”** means the length of time from the issue of the fault ticket number to repair and resolution or the service circuit and/or associated equipment.

**“Virtual Domain”** A customer’s unique context within the Node4 Equipment

**“Volumetric Attack”** means a DDoS attack intended to paralyse the system or resource through saturation of the network (Gbps).

## 4. SPECIFIC TERMS

The following terms and conditions shall apply when Node4 provides N4Protect DDoS Services to the Customer.

### 4.2 CUSTOMER COOPERATION

Node4 expects any customer to co-operate to provide full notice and visibility of any cyber-attack incident when required, and to treat advanced notification of such as urgent. This may include sharing of information such as ransom emails or telephone calls.

### 4.3 THIRD PARTIES

The Customer commits to fully manage all their customers and suppliers directly. Node4 will not interface directly with any third parties working with the Customer unless by prior arrangement. If the Customer requires Node4 to provide their customers with a customer care or NOC service this is available on request and subject to Professional Service Fees.

Node4 shall not be liable in respect of any contract, agreement or relationship that Customer may have with any third party. If a dispute arises between Customer and a third party involving Node4’s N4Protect DDoS service, Node4 shall provide the Customer with reasonable information and assistance (to the extent that such is not adverse to Node4’s interests to Customer (at Customer’s expense)) in the resolution of such dispute.

## 5. FEES

Fees will commence when Ready For Service Notification is provided by Node4 this is following completion of firewall deployment and implementation of initial configuration.

Fees may comprise any or all of the following.

### 5.2 INSTALLATION AND SET-UP FEES

Any applicable Design, Configuration, and Installation Fees for the implementation of the N4Protect DDoS service shall be detailed on the Order Form.

### 5.3 RENTAL FEES

Rental Fees for each service are charged separately and are paid monthly in advance based on the Services N4 Protect DDOS and Internet Bandwidth (CIB).

Rental Fees are applied as and when the service is made available.

## 5.4 EVENT FEE

In the event of a volumetric attack the Event Fee is calculated according to the amount of data and the duration of the attack. The following formula is used:

$$\text{Event Fee} = (\text{Event Data} \times \text{Event Rate}) \times (\text{Event Duration} / \text{Total Month})$$

Where;

- Event Data: 95<sup>th</sup> percentile of the dropped data during the attack based on 5 minute poll intervals
- Event Rate: The Mbps rate applied to the dropped data
- Event Duration: The length of time of the volumetric attack
- Total Month: The number of 5 minute polls in a month (8640)

## 5.5 PROFESSIONAL SERVICE FEES

Additional tasks undertaken by Node4 at the request of the Customer or activities undertaken by the Customer which require the remote support of Node4 personnel will be charged at the hourly rates shown below.

Time support required:	Per hour	Per day
Mon – Fri business hours	£60.00 per hour	£480.00
Mon – Fri other times	£100.00 per hour	POA
Saturday	£100.00 per hour	POA
Sunday	£100.00 per hour	POA

Time is charged by the hour. These rates are for a trained technician and are subject to an annual review by Node4. For advanced engineers with MCSE or CCIE status please contact Node4 for pricing.

## 6. CUSTOMER RESPONSIBILITIES

In order to deliver the service we expect the customer to provide:

- IP Addressing information
- Liaison with Node4 Engineering, Provisioning and project management teams.
- Liaison with Node4 Customer Support teams.

## 7. SERVICE PROVISION

The Node4 N4Protect DDoS service provides the customer with DDoS mitigation services to CIB from the Node4 network. The service may protect either a Data Centre based resource (i.e. N4Cloud or Co-Lo) or an MPLS customer.

### 7.2 SITE EQUIPMENT

For N4 Protect DDOS+ the customer is provisioned in a Virtual Domain on managed Node4 Equipment. No customer premises equipment (CPE) is provided with the N4Protect DDoS service.

### 7.3 HOSTING & CO-LOCATION

Any hosted services are identified on the Order Form and are subject to the Co-location Service Schedule.

### 7.4 INTERNET SECURITY

Node4 can provide N4Protect DDoS customers with additional Internet Security services.

NGFW Firewall and virus protection options are available from Node4 on request.

### 7.5 IP ADDRESSES

The number of IP addresses assigned as protected by the N4Protect DDoS Service will be identified on the Order Form.

It is the customer's responsibility to use their assigned IP addresses. Use of non-assigned IP addresses will result in immediate disconnection from the network.

### 7.6 CUSTOMER SUPPORT

N4Protect DDoS is provided with full management and Node4 Gold Support (24x7x365). Both are included in the pricing.

Support levels are identified in the Incident Management Service Schedule.

## 7.7 MONITORING

Node4's core infrastructure is monitored on a 24/7 basis. This excludes customer premises equipment. Node4's Advanced Monitoring Services are available for customers requiring additional monitoring.

## 7.8 MAINTENANCE WINDOW

Where Node4 plans to perform essential works Node4 will endeavour to perform such works during low traffic periods and will endeavour to give the Customer at least five (5) days prior notice. In the event of an emergency or Service affecting fault such notice may be less than 24 hours.

## 7.9 PROFESSIONAL SERVICES

Support on configuration is provided within business hours only and for a period not exceeding 15 working days from installation. Technical Support is provided for the configuration implemented by Node4; we will not provide support for configuration outside of the original customer requirement.

Additional Professional Services are subject to the price list below.

All incremental expenses incurred during these Professional Services will be passed directly to the Customer. Provisioning costs such as cabling will be discussed and agreed with the Customer in the Order Form.

# 8. FAULT REPORTING AND MANAGEMENT

## 8.2 FAULT HANDLING

Faults are handled as outlined in Incident Management Service Schedule.

## 8.3 TIME TO REPAIR

Business Hours	Description	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5
	Faults & Technical Queries	30 Mins	30 Mins	1 Hr	2 Hrs	1 Day

Acknowledgement*	1 Hr	2 Hrs	4 Hrs	12 Hrs	N/A
Remedial Engineer Actions Commence					
Time to Resolve Fault**	5 Hrs	5 Hrs	24 Hrs	72 Hrs	5 Days* **

	Description	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5
	Faults & Technical Queries Acknowledgement*	60 Mins	60 Mins	Automated Email Response	Automated Email Response	Automated Email Response
Non-Business Hours	Remedial Engineer Actions Commence	2 Hrs	2 Hrs	N/A	N/A	N/A
	Time to Resolve Fault**	5 Hrs	5 Hrs	N/A	N/A	N/A

All 1 & 2 faults should be raised via the tickets system then followed by a phone call.

\* Acknowledgement refers to an automated service which generates a response and alerts engineers of a service failure; or where there is dialogue between the client and the engineer.

\*\* We will use reasonable endeavours to adhere to the TTRF guidelines. Where fault resolution involves third parties, or hardware replacement, then this is subject to the support contracts in place with those parties. For Uncontended Services the TTRF assumes that the BT Enhanced Care option has been taken as outlined in 5.2

\*\*\* Change requests will be completed during business hours within 5 days where requests are conducted within the support contract. This does not include change requests outside of the support contract, or change request implemented outside

normal business hours these will be dealt with as chargeable projects.

## 9. SERVICE CREDITS

Node4 will provide the Customer with Service Credits, as set out below, for the failure to meet the following target:

### 9.2 DDOS MITIGATION

In the event that a volumetric DDoS attack takes place the following SLA to mitigate the DDoS attack and restore customer service is applied. All DDoS attacks are prioritised as a Severity 1 issues, and are given the highest priority to resolve, the target time to resolve is 60 minutes.

DDoS outages above 60 minutes per incident (in minutes)	Service Credits (percentage of monthly recurring Fees for the Service at the relevant Customer Site)
< 60	0%
>60 - 240	5%
>240 - 480	10%
> 480	20%

### 9.3 CALCULATION OF SERVICE CREDITS

Where a Monthly Review Period incorporates part of a month, any Service credit will apply to a pro-rated Monthly Fee.

Service credits will be calculated monthly, aggregated and credited to the Customer on a quarterly basis.

If a Service is cancelled during a Monthly Review Period, no Service credit will be payable in respect of that Circuit for that Monthly Review Period.

The Customer must claim any Service credit due to a failure to meet the Service levels, in writing, within twenty one (21) business days of the date at which the Customer could reasonably be expected to become aware of such failure. The Customer shall

not be entitled to any Service credits in respect of a claim unless and until Node4 has received notice of the claim in writing in accordance with the above. Should Node4 require additional information from the Customer, the Customer shall assist, and shall not be entitled to any Service credits until Node4 has received all the information it has reasonably requested.

### 9.4 EXCLUSIONS TO PAYMENT OF SERVICE CREDITS

Service credits will not be payable by Node4 to the Customer in relation to the Service Availability for faults or disruptions to the Service caused by any of the following:

- The fault, action or negligence of the Customer, its employees, agents or contractors;
- The Customer failing to comply with Node4's Standard Terms and Conditions;
- A fault in, or any other problem associated with, equipment connected on the Customer's side of the Node4 Network Termination Point, except where such fault or problem is directly caused by the fault action or negligence of Node4, its employees, agents or contractors;
- Any event described in Clause 12 (Force Majeure) of Node4's Standard Terms and Conditions (Schedule 1);
- A failure by the Customer to give Node4 access to any equipment after being requested to do so by Node4; or
- Maintenance during any Planned Outage
- Where the customer is unable to provide 24 hour site access

Service credits are not applicable for more than one breach of any targets outlined in this document arising from the same occurrence.

In respect of any Monthly Review Period, the total amount of any service credit payable in relation to any service level breach shall not exceed 50% of the Monthly Fees for the affected Service.

The provision of Service credits shall be the sole and exclusive remedy for the failure to meet targets for the Co-location service. Node4 shall have no additional liability to the Customer.