

Schedule Document

IP-BVN

Node4 Limited

29/11/2007

SCHEDULE

Additional terms, Service Description & Service Level Agreement for IP-BVN.

1. SERVICE DESCRIPTION

The Node4 IP-BVN Service provides the Customer with a multi-site connectivity solution that may include centralised services such as internet breakout.

2. DEFINITIONS

“Additional Terms” means this Schedule 2 forming part of the Master Agreement, which describes the Products and/ or Services to be provided and the relevant service levels;

“Bandwidth Charge” means charges payable by the Customer to Node4 as defined in the Order Form form;

“Best Cost Routing” means Routing traffic to the best cost provider on the basis of a quality and price ratio;

“Border Control” means the control and operation of VOIP network interconnects;

“Business Hours” means Monday to Friday, 9am to 5pm, excluding Bank and other Public Holidays;

“Call” means a voice call initiated by the Customer using the Services;

“CDR” means Call Data Records;

“Charges” means charges as described in this Schedule 2 and where relevant set out in the Order Form Form, and shall be payable by the Customer in accordance with Clause 3 of Node4’s Standard Terms and Conditions (Schedule 1);

“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.

“Dial Plan” means the defined number ranges and the country or regional names assigned to specific codes;

“Equipment” means, without limitation, any equipment, machinery, and apparatus provided by Node4 as part of the Services, and/or used in order to make available the IP-BVN Services to the Customer;

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

“Installation Charge” means charges payable by the Customer for the installation of IP-BVN 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 the Service Commencement Date;

“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.

“Number Management” means any services provided by Node4 for the routing, translation or definition of telephony number ranges;

“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.

“Professional Service Charges” means the professional service charges detailed on the Order Form or otherwise agreed in writing between the Parties in accordance with Clause 4 below;

“Routing” means the ability to redirect voice traffic streams between different terminating networks;

“SBC” means Session Border Controller

“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 Service Measurement 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.

“Service Commencement Date” means the date when Node4 provides the Service tested and ready for use;

“Service Measurement Period” means a calendar month for which the Service is available.

“Successful Call” means a call which has established a voice path and therefore has billable duration;

“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.

“VOIP” means Voice Over Internet Protocol;

“Web Portal” means a website Customer may use to view online service reports.

3. IP-BVN TERMS

The following terms and conditions shall apply when Node4 provides IP-BVN Services to the Customer.

4. CHARGES

4.1 Charges payable by the Customer

Charges for IP-BVN may comprise any or all of the following Charges including an Installation Charge and a Monthly or Annual Service Charge. In addition the service requires hardware which is charged for separately.

4.1.1 Installation Charges

Any applicable Design, Configuration, and Installation Charges for the implementation of the IP-BVN service shall be detailed on the Purchase Order.

4.1.2 Rental Charges

Rental charges are paid either monthly or annually in advance based on the connection rentals, support contracts, centralised services and any other related service and are identified on the purchase order.

Rental charges are applied as and when each service is made available, including individual site connections.

4.1.3 Bandwidth Charges

Bandwidth to each site is included in the rental charges. Where centralised internet access is required, 25% of the total site bandwidth is provided free of charge. Additional bandwidth charges are identified on the purchase order.

4.1.4 Support & Professional Services

A full range of Support & Professional Services are available to the Customer. The Service Charges include but are not limited to:-

- pre-configuration or on-site installation of routers & firewalls
- network design
- remote support services
- network, router and firewall management
- monitoring

The Professional Services are subject to the price list below. Specific rates for large or repeat orders can be agreed on a case by case basis in writing.

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 Purchase Order.

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.

4.1.5 Minimum commitment

The service is subject to a minimum contract term of 12 months. For termination of the services, there is a minimum notice period of 30 days written notice the earliest of which can be given at the end of the minimum contract term. Details of minimum commitment terms for additional services shall be detailed in the Purchase Order.

5. Provision of IP-BVN services

The Node4 IP-BVN service provides the customer a multi-site connectivity solution. Connections to

each site are provided using broadband, leased line or MPLS tails. Each site is connected to the Node4 core network where they are linked together on a VLAN.

5.1 Site Connections

Options for connections to each site include:

- Contended Broadband (IPStream)
- Uncontended Broadband (DataStream, QoS Enabled option)
- Leased Lines (QoS Enabled option)
- MPLS (QoS Enabled option)
- 10Mb, 100Mb, 1Gb Ethernet (QoS Enabled option)

There are 2 elements to delivering DSL services:
Virtual Path to the telephone exchange
End User Access from the exchange to the customer site

Availability checks are always carried out before a contract is offered, however these cannot be confirmed until an order is placed with BT and they carry out a survey.

The maximum bandwidth of any DSL service is based on the distance from the telephone exchange. Bandwidth indicated on the order form is subject to survey which is completed when an order is placed with BT.

All other services are also subject to survey which is completed upon order.

5.2 Broadband Enhanced Care

BT Broadband Enhanced Care can be provided on uncontended DSL services. This service provides a 4-hour response and a 24-hour fault clear from BT. If the Enhanced Care option is provided it will be identified on the Order Form.

BT may request site access in response to Enhanced Care faults. If the customer is unable to provide unrestricted site access the fault may be re-graded by BT to Standard Care. Standard Care provides no SLA backed response or fix time.

Where BT specialist engineers or contractors are required to resolve a fault, such as, but not limited to, underground or overhead wiring engineers, BT's response will be best endeavors.

5.3 Site Equipment

Each site requires a router which can be supplied by Node4 or the customer.

Unless identified on the Purchase Order it is the customers responsibility to install the router. Node4 will supply DSL configuration details in an email to the customer named contact on the order form prior to the service live date.

Node4's preference is to use Cisco routers with QoS features. This hardware is provided with the standard manufacturers warranty unless a hardware maintenance contract, such as Cisco Smartnet is identified on the order form.

Do not discard the packaging. It is absolutely essential that the box is retained to comply with our return procedures.

5.4 Centralised Services

A range of centralised services are available as part of the IP-BVN solution. Any additional services provided are identified on the order form and may include:

5.4.1 Centralised Internet Access

The Customer VLAN can be opened up to the internet to provide centralised internet breakout. In order to benefit from centralised internet access a centralised firewall will need to be located in the Node4 Data Centre. This can be:
Shared Port on Node4 Cisco Firewall (standard rules, no VPN support)
Node4 supplied Dedicated Firewall (optional management)
Customer Supplied Firewall (must be rack-mountable, co-location charges apply)

Node4 supplied firewalls are subject to additional terms identified in the Hosted & Managed Firewall Schedule.

25% of the total site bandwidth is provided as internet bandwidth free of charge. Additional bandwidth is available and identified on the order form. All internet usage is subject to the Acceptable Use Policy

5.4.2 Centralised PSTN Access

The customer VLAN can be opened up to the PSTN using the Node4 SIPLink service so that telephone calls can be made and received. Additional information is found in the SIPLink Schedule.

5.4.3 Hosting & Co-location

The customer VLAN can have access to the Node4 Data Centre where customer servers such as Email can be located. Any hosted services are identified

on the order form and are subject to the Hosted Services or Co-location Schedule.

5.5 Professional Services

Node4 can provide a range of services including:

- Router pre-configuration - this means that the router is pre-configured at Node4 and delivered to the customer site. The customer will have to provide someone on-site to connect the router. In the event of technical difficulties Node4 may require 'remote hands' to check connections and status. If the router cannot be set-up correctly or is faulty it will need to be returned to Node4 to be checked before a replacement is sent out. Costs for this service are based upon the complexity of the customer configuration. Node4 technical support will require the customer to define their configuration requirements via email.
- on-site installation

Node4 can provide an engineer to install and configure the router on the customer site.

- firewall configuration and set-up
- network design

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.

5.5 Internet Security

Node4 provide co-location customers with public internet access. Internet Security and Virus Protection is the responsibility of the customer.

All internet usage is subject to the Acceptable Use Policy (AUP)

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

5.6 IP Addresses

The number of IP addresses assigned will identified on the order form. IP address usage is monitored and reported to RIPE. The use of IP addresses must be justified.

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

5.7 Customer Support

The level of support available depends on the type of tail circuit provided:

Contended Broadband (IPStream): Bronze
Uncontended Broadband (DataStream), Leased Lines, MPLS, Ethernet: Silver

Support levels are identified in the fault management and reporting handbook.

Node4 provides the IP-BVN service direct to the Customer. 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. 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 Charges.

5.8 Monitoring

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

5.9 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 Co-location 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.

5.10 Customer Responsibilities

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

- IP Addressing information
- Assistance for BT when they visit the customer site (Abortive site visits are chargeable)
- Power, Ethernet port on LAN and cabinet space for router
- Analogue phone lines for ADSL. Node4 install a new line for SDSL services.
- Please note that the location of the BT circuit and the LAN port must be within 2metres of the router location.

5.11 Suspension of Service

Node4 shall be entitled to suspend the IP-BVN service:

- In a life or property threatening emergency

- If required to do so by any governmental or regulatory authority; or
- Where the Customer is in breach of this Agreement or terms and conditions

5.12 Warranty

The Customer warrants that it will not use the Products or Services or permit the same to be used:

- For the transmission of any material which is defamatory, offensive or of an abusive or obscene or menacing nature; and/or
- To cause annoyance, inconvenience or needless anxiety or any improper use; and/or
- Except in accordance with any relevant legal or regulatory requirements, and operating instructions notified by Node4 from time to time; and/or
- In a manner which constitutes a violation or infringement of the right of any person; and/or
- Contrary to the Acceptable Use Policy
- Contrary to the procedures set out in the Customer Handbook and the terms of this Agreement.

6. FAULT REPORTING AND MANAGEMENT

6.1. Fault Handling

Faults are handled as outlined in the Fault Reporting & Management Hand book

6.2. 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.

6.3. Time to Repair

Contended ADSL and SDSL Services - Bronze Service Level

Note - Out of business hours support is not provided with contended services.

	Description	Cat 1	Cat 2	Cat 3	Cat 4	Cat 5
Business Hours	Faults & Technical Queries Acknowledgement*	1 Hour	1 Hour	2 Hours	2 Hours	1 Day
	Remedial Engineer Actions Commence	3 Hours	5 Hours	7 Hours	1 Day	N/A
	Time to Resolve Fault**	Best endeavours	Best endeavours	Best endeavours	N/A	N/A

Uncontended ADSL and SDSL Services - Silver, Silver Plus & Gold Service Levels

	Description	Cat 1	Cat 2	Cat 3	Cat 4	Cat 5
Business Hours	Faults & Technical Queries Acknowledgement*	30 Mins	30 Mins	1 Hour	2 Hours	1 Day
	Remedial Engineer Actions Commence	1 Hour	2 Hours	4 Hours	12 Hours	N/A
	Time to Resolve Fault**	25 Hours	25 Hours	24 Hours	72 Hours	5 Days ***

	Description	Cat 1	Cat 2	Cat 3	Cat 4	Cat 5
Non-Business Hours	Faults & Technical Queries Acknowledgement*	60 Mins	60 Mins	Automated Email Response	Automated Email Response	Automated Email Response
	Remedial Engineer Actions Commence	2 Hours	2 Hours	N/A	N/A	N/A
	Time to Resolve Fault**	25 Hours	25 Hours	N/A	N/A	N/A

Leased Line & Ethernet based Services - Bronze, Silver, Silver Plus & Gold Service Levels

	Description	Cat 1	Cat 2	Cat 3	Cat 4	Cat 5
Business Hours	Faults & Technical Queries Acknowledgement*	30 Mins	30 Mins	1 Hour	2 Hours	1 Day
	Remedial Engineer Actions Commence	1 Hour	2 Hours	4 Hours	12 Hours	N/A
	Time to Resolve Fault**	5 Hours	5 Hours	24 Hours	72 Hours	5 Days ***

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

Hours of support are based on the Service Level (Bronze, Silver, Silver Plus, Gold)

All category 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 endeavors 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.

6.4. Fault Duration

All faults recorded by the Network Management System will be reconciled against the corresponding fault ticket raised by the Technical Support Centre. The exact fault duration will be calculated as the elapsed time between the fault being reported to the Technical Support Centre and the time when Service is restored.

6.6. Service Credits

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

- Network Service Availability
- Network Quality of Service (Excluding contended DSL services)

The Service is "Available" when the customer connection is authenticated and the customer can send and receive IP traffic.

The following equation will be used to calculate Service Availability. References to hours are to the number of hours (rounded to nearest hour) in the applicable Monthly Review Period:

$$\frac{((\text{Total hours} - \text{Total hours Unavailable}) / \text{Total hours}) \times 100}{}$$

Credits for Outages will be calculated on a monthly basis and will be based upon the cumulative elapsed time of any Outages and the monthly Charge for the Service for each Customer Site.

6.8. Service Availability

Node4's goal is to achieve a minimum of: 99.9% Service availability per month for each Customer Site with Leased Line Access (as specified in the Customer Order); and 99.4% Service availability per month for each Customer Site with Uncontended DSL access. No service availability guarantee is available for contended DSL services

In respect of Uncontended DSL Access:

Total monthly Outages at the relevant Customer Site (in hours)	Service Credits (percentage of monthly recurring Charge for the Service at the relevant Customer Site)
Up to and including 4	0%
Over 4 up to and including 29	1% for each complete hour over 4 hours
Over 29	25%

In respect of Leased Line Access:

Total monthly Outages at the relevant Customer Site (in hours)	Service Credits (percentage of monthly recurring Charge for the Service at the relevant Customer Site)
Up to and including 30	0%
Over 30 up to and including 240	5%
Over 240 up to and including 480	10%
Over 480	20%

Network Quality of Service

Node4's QoS Network performance target (calendar monthly averages) for each level of traffic priority defined as Class 1, 2 and 3 on the Customer Order is as follows:

Class	Round trip delay	Packet Delivery	Jitter
1	20ms	99.9%	5ms
2	30ms	99.95%	N/A
3	50ms	99.8%	N/A

Class 1 and Class 2 bandwidth in respect of any access line into a Customer Site shall be as defined in the Customer Order. If there is no such specification set out in the Customer Order, then the default position for all traffic will be Class 3.

The Customer shall be entitled to receive a Service credit if Node4 fails to meet the target performance specified above. The Customer acknowledges and agrees that such credit will be based on Node4's own measures of core performance of the Network (acting reasonably and in good faith) and excludes any performance

or measurements in relation to Tail Circuits, local access circuits and/or telephone dial or PSTN/ISDN dial facilities.

Any claim for Service credits issued by the Customer shall be analysed by Node4 by comparing the average performance of the Network taken over the calendar month in question applicable to the Customer Site affected, against the target performance specified above.

If Node4 fails to achieve the performance target specified above (whether in whole or in part) in any one calendar month when measured as above in relation to any Customer Site(s), the Customer shall be entitled to a one-off Service credit of 5% of the monthly Charge applicable to such Customer Site(s) for such month.

6.9. Calculation of Service Credits

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

6.10. 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
- Faults relating to PSTN or Analogue Phones lines

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 Charge** 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.