

This Service Schedule sets out the service description and service levels that apply to the Managed Network Service.

1 SERVICE DESCRIPTION

- 1.1 The Managed Network Service consists of the following:
- (a) Internet Protocol Virtual Private Network Service (**IPVPN**) as set out in Attachment 1;
 - (b) **Internet** which consists of Global Internet Direct (GID), Global Internet Extension (GIE) or Telstra Internet Direct (TID) as set out in Attachment 2;
 - (c) Global Managed Network Service (**GMNS**) as set out in Attachment 3; and
 - (d) Global Customer Premise Equipment Service (**GCPE**) as set out in Attachment 4.
- 1.2 In this Service Schedule each combined end-to-end IPVPN, Internet, GMNS and GCPE Service is referred to as a **Managed Network Service** and each individual IPVPN, Internet, GMNS and GCPE Service is referred to as a **Service**.
- 1.3 The service levels that apply to the Managed Network Service are set out in Attachments 5 and 6.

2 BANDWIDTH

- 2.1 You must specify in your Service Order Form the amount of bandwidth for your IPVPN and Internet Service (**Committed Data Rate**)
- 2.2 Subject to the terms relating to our burstable bandwidth optional service in Attachments 1 (IPVPN) and 2 (Internet), we will not deliver your IPVPN and Internet traffic in excess of your Committed Data Rate.

3 CHARGES

- 3.1 The charges payable by you for your Managed Network Service are set out in a single Service Order Form.

4 THIRD PARTY EQUIPMENT

- 4.1 You are responsible for the configuration and the security of any equipment not managed by us which is connected to the Managed Network Service.

5 POLICIES

- 5.1 You must comply with our policies relating to IP addresses, routing protocols and classes of service (**CoS**) as they apply to the Managed Network Service. .

6 AUSTRALIAN SERVICES TERMS

- 6.1 Where this Service Schedule and its attachments refer to Australian Services, this section shall apply.
- 6.2 You should refer to Our Customer Terms for the service description, service levels and other product terms applicable to the Australian Services.
- 6.3 Our Customer Terms (except for the General Terms section) form part of the Agreement insofar as they apply to Australian Services. Our Customer Terms do not apply to the Global Services.
- 6.4 You may view Our Customer Terms at <https://www.telstra.com.au/customer-terms/business-government> or obtain a copy from us. You acknowledge either receiving, or having had the opportunity to review, a copy of Our Customer Terms, including but not limited to the following sections of Our Customer Terms:-
- (a) the Business IP section; and
 - (b) Part A – Telstra Internet Direct of the Internet Solutions section

which refer to other sections of Our Customer Terms which also apply to your Australian Service.

SERVICE SCHEDULE – MANAGED NETWORK SERVICE

- 6.5 If there is an inconsistency between Our Customer Terms and any other part of this Agreement in respect of their application to an Australian Service, Our Customer Terms sits last in precedence.
- 6.6 If your Agreement includes a separate “Data Services Schedule” which applies to the Australian Services, the terms in that Data Services Schedule will prevail over the terms in Attachment 1 (IPVPN) and Attachment 2 (Internet) to the extent of any inconsistency.
- 6.7 We may limit, suspend or cancel the provision of an Australian Service at any time:
- (a) without notice to you in the event of an emergency or in order to provide resources to emergency and other essential services
 - (b) after giving you as much notice as we reasonably can, if the Australian Competition and Consumer Commission (ACCC) issues or we reasonably anticipate that the ACCC may issue a competition notice in relation to an Australian Service; or
 - (c) after giving you notice if you are or become a carrier or carriage service provider (as defined in the Act).
- 6.8 You agree and will ensure that your Personnel, your Related Companies and their Personnel, and any individuals, who receive the Australian Services or whose information is disclosed to us, in connection with our provision of the Australian Services, are aware that we may use and disclose information about you and each of them in accordance with our Australian privacy statement (as amended by us from time to time), which is available at <http://www.telstra.com.au/privacy/privacy-statement/index.htm>.

7 EARLY TERMINATION CHARGES

EARLY TERMINATION CHARGES FOR IPVPN, INTERNET AND GMNS SERVICES

- 7.1 If you cancel, terminate or downgrade an IPVPN, Internet or GMNS Service for any reason other than our material breach of this Agreement:
- (a) prior to the Service Start Date for the relevant Service, you must pay us an Early Termination Charge equal to the costs reasonably incurred by us as a result of the termination (including any amounts payable by us to our Service Provider as a result of the cancellation of the relevant Service); or
 - (b) during the Initial Period for the relevant Service, you must pay us an Early Termination Charge for the remaining months in the Initial Period calculated in accordance with Table 1.

Table 1: Early Termination Charges

Initial Period	Percentage of the MRC payable as Early Termination Charge from the date of cancellation / downgrade	
	12 Months	Months 1-12
24 Months	Months 1-12	100%
	Months 13 to 24	75%
36 Months	Months 1-12	100%
	Months 13 to 24	75%
	Months 25 to 36	50%

EARLY TERMINATION CHARGES FOR GCPE SERVICES

- 7.2 If, you cancel, terminate or downgrade a GCPE Service for any reason other than our material breach of this Agreement:
- (a) during the Installation Period for that GCPE Service, you must pay us an Early Termination Charge equal to the costs reasonably incurred by us as a result of the termination (including any amounts payable by us to our Service Provider as a result of the cancellation of the GCPE Service); or

- (b) during the Initial Period, the Early Termination Charge is an amount equal to the monthly charges that would otherwise have been payable by you for the remainder of the Initial Period.

8 DEFINITIONS

8.1 In this Service Schedule, unless otherwise stated:

Act means the Telecommunications Act 1997 (Cth).

Available or Availability means the number of minutes in a month during which a Service is not Unavailable at a PoP or at a Site

Committed Data Rate has the meaning set out in Clause 2.1.

Equipment means the equipment you purchase or rent from us as listed in the Service Order Form.

Fault means a malfunction or error in any component of the Managed Network Service resulting in outage or service degradation.

Initial Period means the minimum period for which you must acquire a Service, as set out or referred to in a Service Order Form or the applicable Service Schedule.

Installation Period means the period between the date of acceptance of a GCPE Service Order Form by us and completion of the installation of the Equipment.

Jitter measures the average deviation in a month in the RTD for the voice CoS Jitter is measured between PoPs using sample test IP packets sent at five minute intervals between provider edge routers enabled with a performance monitoring device to measure continuous traffic flow over our IPVPN Network, as identified in the PoP List.

Local Access or **Local Loop** means the domestic connecting carriage service providing a direct connection between a PoP in a country and your Site in that country.

Mean Time to Restore (MTTR) means the sum of the time your Managed Network Service is Unavailable during a month divided by the total number of service outages in that month. Each occasion on which the relevant Managed Network Service is Unavailable is counted as one outage.

MRC means the monthly recurring charge payable for the Managed Network Service or a component of the Managed Network Service for a relevant calendar month.

Network means a system or series of systems that carries, or is capable of carrying communications by means of guided or unguided electromagnetic or optical energy.

Operating System Software means the operating system software described in the manufacturer's service description for the Equipment as being the standard ex-factory installation required to operate the Equipment.

Operating System Software Update means an incremental release of Operating System Software that provides maintenance fixes and may provide additional Operating System Software features.

Our Customer Terms means the Standard Form of Agreement formulated by Telstra for the purposes of Part 23 of the Act, as amended by us from time to time in accordance with the Act.

Packet Delivery Ratio (PDR) means the ratio of the number of test IP packets received at a destination provider edge router, compared with the number of test packets sent from an origin provider edge router at 5 minute intervals in a month. PDR only applies to a Service where the Port is on a provider edge router that is enabled with a performance monitoring device to measure traffic flow over our Network.

PoP means a point of presence housing access nodes which connect to the Telstra international backbone network used by us to carry traffic between PoPs in different countries around the world.

PoP-to-PoP means a point-to point or point-to-multipoint Service provisioned between PoPs without a Local Access.

Port means a service access point within a PoP.

Provisioning Fault means the failure of a Service to meet the relevant ITU specifications for establishing that Service.

Related Bodies Corporate has the meaning given under the Corporations Act 2001 (Cth).

Related Company means each of your Related Bodies Corporate that uses or accesses the Services and Related Companies has a corresponding meaning.

Response Time is the period commencing when a valid trouble ticket is received by our service desk and ending when we advise you that the fault has been identified and action has commenced to resolve it.

Round Trip Delay (RTD) measures the monthly average round trip delay performance of the IPVPN Service, and is measured separately between our PoPs for each type of IPVPN CoS between provider edge routers enabled with a performance monitoring device to measure continues traffic flow over our IPVPN Network, as identified in the PoP List.

Service Guide means any service guide or manual which is made available to you in connection with the Managed Network Service.

Site means the location at which the Managed Network Service is provided to you, as set out in your Service Order Form.

Site-to-Site means a point-to point or point-to-multipoint Service provisioned between your Sites which are connected to our PoPs via Local Access circuits.

Software means the computer programs relating to the operation of your Managed Network Service, including firmware and application software, the Operating System Software and any Operating Systems Software Updates.

Unavailable or **Unavailability** means an unplanned outage that results in the total disruption of a Service, such that the Service is unable to send and receive data. Unavailability commences when a trouble ticket has been logged by our service desk, and excludes any period during which an Exclusion Event applies.

8.2 The terms **Business Day**; **Early Termination Charge**; **Exclusion Event**; **Personnel**; **Service Order Form** and **Service Provider** are defined in the Definitions section of our Global Business Services Agreement.

Attachment 1 – IPVPN Service

This Attachment including the Optional Service Features Annexure) sets out the service description and service levels that apply to the IPVPN Service component of your Managed Network Service.

1. Service Description

- 1.1 Our IPVPN Service provides multi-protocol label switching (**MPLS**) based layer 3 IP connectivity between designated access end points at PoPs on our IPVPN Network and includes other optional services specified in your Service Order Form (each a **Service**).
- 1.2 In this Service Schedule:
 - (a) the “**Australian Services**” are the Business IP Services and its associated optional services provided within Australia as specified in your Service Order Form; and
 - (b) the “**Global Services**” are the IPVPN Services provided under this Service Schedule excluding the Australian Services.

Annexure 1 to Attachment 1

Optional Service Features for IPVPN Service

1 OPTIONAL SERVICE FEATURES

- 1.1 You may request us to supply the following optional service features as part of your IPVPN Service:
 - (a) Remote Site Access (**RSA**);
 - (b) Secure Mobile Access (**SMA**);
 - (c) Unmanaged Internet Access (**UIA**);
 - (d) Burstable Bandwidth; and
 - (e) Expereo Global Internet Extension Gateway (**Expereo GIEG Service**),

(Optional Service Features).
- 1.2 To access the Optional Service Features, you may request us to supply our Internet Services (Attachment 2).
- 1.3 The terms and conditions in this Annex do not apply to the Australian Services including to any optional services you may acquire with your Australian Services.

2 RSA

- 2.1 Our RSA Service connects your Sites to our IPVPN network via an internet connection used as last mile.
- 2.2 For each Site where RSA is provided, a virtual local area network (**VLAN**) is created between a router at an IPVPN Port and a router at a GID Port. We will allocate the bandwidth on the VLAN according to the IPVPN Port speed set out in your Service Order Form.
- 2.3 We provide RSA as either a:
 - (a) dedicated gateway for one remote Site connection; or
 - (b) shared gateway for multiple remote Site connections.
- 2.4 We will allocate the bandwidth on the VLAN according to the IPVPN Port speed set out in the Service Order Form
- 2.5 You must either accept our IP address and IP address blocks or provide the remote host IP address and IP address blocks for your remote Sites.

3 SMA

- 3.1 Our SMA Service provides you with third party software that allows you to obtain secure remote access to our IPVPN Network via a secure Internet gateway.
- 3.2 We provide SMA as shared gateway for multiple remote user connections.
- 3.3 You must ensure that the mobile client IP address pool we provide you does not conflict with your IPVPN setup.
- 3.4 You must provide your own DNS server IP address if you want to access your internal applications via your domain name.
- 3.5 You can specify the location(s) and bandwidth of the SMA gateway and number of concurrent users in your Service Order Form.

4 UIA

- 4.1 Our UIA Service allows you to use two virtual circuits on the same Local Access to connect to an IPVPN Port and a GID port (**Shared Local Access**).
- 4.2 Our UIA Service is only available in PoPs in which we offer both GID and IPVPN Services.
- 4.3 We will provide you with dedicated bandwidth on the Shared Local Access for both your IPVPN Service and your GID Service. Your combined IPVPN Service and GID service traffic on the Shared Local Access must not exceed the total bandwidth of the Shared Local Access.
- 4.4 The Shared Local Access is part of the IPVPN Service (and is not part of the GID Service). Our IPVPN service levels apply only to the IPVPN virtual circuit part of the Shared Local Access. The service levels applicable to the GID component of the Shared Local Access are set out in attachment 2 (Internet Service) of this service Schedule.

5 BURSTABLE BANDWIDTH

INTRODUCTION

- 5.1 Our Burstable Bandwidth Service allows you to use additional network bandwidth above your Committed Data Rate up to a maximum bandwidth (**Maximum Data Rate**), as specified by you in your Service Order Form.
- 5.2 If you do not specify a Maximum Data Rate, the default ratio of 2:1 (Maximum Data Rate: Committed Data Rate) will apply.
- 5.3 You may only request a variation to each of your Committed Data Rate and Maximum Data Rate once each month. The variation will take effect in the next calendar month.
- 5.4 We do not promise to deliver your IPVPN traffic in excess of your Committed Data Rate. We will not deliver your IPVPN traffic in excess of your Maximum Data Rate.
- 5.5 Your standard MRC will apply for your bandwidth usage up to your Committed Data Rate. Additional variable charges will apply for your bandwidth usage in excess of your Committed Data Rate up to your Maximum Data Rate.

HOW WE MEASURE AND CHARGE YOUR BANDWIDTH

- 5.6 We will measure your bandwidth usage in five minute intervals, on all your incoming and outgoing IPVPN traffic through each Port for the purpose of calculating your chargeable bandwidth for the option that you select below:
 - (a) **95th Percentile** – we use the higher of your incoming and outgoing IPVPN traffic and charge a specified rate to your bandwidth usage in excess of your Committed Data Rate after excluding the top 5% of your monthly traffic utilisation measured by us when arranged from highest to lowest;

- (b) **90th Percentile** – if agreed by us in writing, we use the higher of your incoming and outgoing IPVPN traffic and charge a specified rate to your bandwidth usage in excess of your Committed Data Rate after excluding the top 10% of your monthly traffic utilisation measured by us when arranged from highest to lowest; or
- (c) **Average Rate** – if agreed by us in writing, we will charge a specified rate to the simple average of your bandwidth usage in excess of your Committed Data Rate of your monthly traffic utilisation measured by us.

SERVICE LEVELS

- 5.7 Our service levels only apply to your Committed Data Rate and not to your bandwidth usage in a particular month that exceeds your Committed Data Rate.

GIEG SERVICE

- 5.8 Our Expereo Global Internet Gateway (Expereo GIEG) Service provides set-up, configuration and maintenance of an encrypted public internet based connection from a remote Site to your IPVPN Service and includes:
 - (a) remote Site internet access provided over one of the following Local Access types: Digital Subscriber Line technology (ADSL, SDSL, HDSL, VDSL), Private Line, Cable, Satellite (2-way), Wireless or 3G Mobile networks, with speeds ranging from 64kbits/s up to 47Mbit/s, depending on location;
 - (b) a router on your Site connected to our internet gateway and your LAN; and
 - (c) an IPSec tunnel between the router on your Site and our internet gateway.

Attachment 2 – Internet Service

1. SERVICE DESCRIPTION

1.1 Our Internet Service consists of Global Internet Direct (GID), Telstra Internet Direct (TID) and Global Internet Extension (GIE) Services.

1.2 Our GID and TID Services provide connectivity between a Port at our PoP and the Internet and consist of the following:-

For GID Services:-

- (a) GID Standard Service which transmits your Internet traffic via at least two dedicated cable paths;
- (b) GID Economy Service which transmits your Internet traffic using non-restored capacity;
- (c) GID PBS Service which provides Internet access to your Sites in China comprising:-
 - (i) GID PBS (Advanced) Service;
 - (ii) GID PBS (Economy) Service;
 - (iii) GID PBS (Professional) Service which you may only acquire when you co-locate in one of our data centres in China; and
 - (iv) GID PBS (Standard) Service;
- (d) Optional services for GID Services as set out in Annex 1; and

For TID Service:-

- (e) TID Premium Package Service which provides dedicated connection to the Internet via our PoPs around Australia and includes an Australian Connecting Carriage Service.

1.3 Our GIE Service supplements our GID and TID Services and is provided in conjunction with our Service Providers and consists of:-

- (a) GIE Standard and Economy Services which expand Internet access coverage via local internet providers and supporting technologies including xDSL, FTTx, and DIA, with service availability targets for GIE Standard and a best efforts basis service for GIE Economy; and
- (b) Expereo GIE Service which expands Internet access coverage and allows you to additionally acquire:-
 - (i) Expereo GIE Router Service which includes a GIE Standard Service and a router which will provide connectivity between the Internet and your Local Area Network (LAN) (Acquiring our Global IPVPN service is a pre-requisite to acquiring this Service); and/or
 - (ii) Expereo GIE Gateway Service which is an encrypted public Internet based connection from your Site to our Global IPVPN service (Acquiring our Global IPVPN service is a pre-requisite to acquiring this Service).

1.4 In this Service Schedule:

- (a) the “**Australian Services**” are the TID Service specified in clause 1.2(e) and its associated optional services provided within Australia as specified in your Service Order Form;
- (b) the “**Global Services**” are the GID Service specified in clauses 1.2(a) to (d) and its associated optional services provided outside Australia as specified in your Service Order Form; and
- (c) the “**GIE Services**” are the GIE Services specified in clause 1.3(a), (b), (b)(i) and (b)(iii) provided outside Australia as specified in your Service Order Form.

each a **Service**.

2 COUNTRY SPECIFIC TERMS

CHINA

- 2.1 For your GID Standard Services, you may specify in your Service Order Form the percentage of traffic flow that you expect to be transmitted to/from China (**Nominated China Direct Traffic Flow**).
- 2.2 If you do not specify a Nominated China Direct Traffic Flow, the default percentage of up to 5% will apply.
- 2.3 We will review on a quarterly basis (**Quarterly Review**) the actual percentage of traffic flow for your GID Standard Service that is transmitted to/from China (**Actual China Traffic Flow**).
- 2.4 If, following a Quarterly Review, we determine that your Actual China Traffic Flow materially exceeds your Nominated China Traffic Flow, we may:-
 - (a) review the charges that apply to your GID Standard Service; and
 - (b) adjust the Nominated China Traffic Flow appropriately.
- 2.5 If we adjust your Nominated China Traffic Flow in accordance with clause 2.4(b), the adjusted figure will become the Nominated China Traffic Flow for each subsequent Quarterly Review until that figure is further adjusted.
- 2.6 We will agree on any changes to the charges that apply to your GID Standard Service before they take effect.

INDONESIA

- 2.7 In order to comply with local regulatory requirements, you must acquire our DNSR Service for Services supplied in Indonesia.

Annexure 1 to Attachment 2

Optional Service Features for Internet Service

1. Optional Service Features for Global Services

1.1 You may request us to supply the following optional Services with your Global Services:

- (a) Blackhole Routing Service (not applicable to GID PBS Services);
- (b) Domain Name Service Resolver Service (**DNSR Service**); and
- (c) Burstable Bandwidth (not applicable to GID PBS Services).

(Optional Service Features).

1.2 To access the Optional Service Features, you may need to separately acquire additional services. The terms relating to the supply of those additional services are set out in separate Service Schedules and Service Order Forms.

2. Blackhole Routing Service (NOT APPLICABLE TO GID PBS SERVICES)

2.1 If you select this Service, we will try (but do not promise) to configure our Network in a way that Internet traffic is dropped within our Network and not delivered to your designated routing prefixes.

3. DNSR Service

3.1 If you select this Service, subject to our feasibility assessment, we will try (but do not promise) to resolve and respond to your requests for mapping of Internet domain names to Internet IP addresses and Internet IP addresses to Internet domain names.

4. Burstable Bandwidth (NOT APPLICABLE TO GID PBS AND AUSTRALIAN SERVICES)

INTRODUCTION

4.1 Our Burstable Bandwidth Service allows you only for your GID Standard and GID Economy Services to use additional Internet bandwidth above your Committed Data Rate up to a maximum amount of Internet bandwidth (Maximum Data Rate) as specified by you in your Service Order Form.

4.2 If you do not specify a Maximum Data Rate, the default ratio of 2:1 (Maximum Data Rate: Committed Data Rate) will apply.

4.3 You may only request a variation to each of your Committed Data Rate and Maximum Data Rate once each month. The variation will take effect in the following calendar month.

4.4 We do not promise to deliver your Internet traffic in excess of your Committed Data Rate. We will not deliver your Internet traffic in excess of your Maximum Data Rate.

HOW WE MEASURE AND CHARGE YOUR BANDWIDTH

4.5 Your standard MRC will apply to your bandwidth usage up to your Committed Data Rate. Additional variable charges will apply to your bandwidth usage in excess of your Committed Data Rate up to your Maximum Data Rate.

4.6 We will measure your monthly bandwidth usage in five minute intervals on all your incoming and outgoing Internet traffic through each Port for the purpose of calculating your chargeable bandwidth for the option that you select below:

- (a) 95th Percentile – we use the higher of your incoming and outgoing Internet traffic and charge a specified rate to your bandwidth usage in excess of your Committed Data Rate after excluding the top 5% of your monthly traffic when arranged from highest to lowest;
- (b) 90th Percentile – if agreed by us in writing, we use the higher of your incoming and outgoing Internet traffic and charge a specified rate to your bandwidth usage in excess of your Committed Data Rate after excluding the top 10% of your monthly traffic when arranged from highest to lowest; or
- (c) Average Rate – if agreed by us in writing, we will charge a specified rate to the simple average of your bandwidth usage in excess of your Committed Data Rate.

4.7 We will measure and charge your monthly bandwidth usage on port by port basis.

Attachment 3 – Global Managed Network Service

This Attachment applies to the GMNS Service component of your Managed Network Service.

1 GLOBAL MANAGED NETWORK SERVICE

1.1 The Global Managed Network Service (**GMNS**) manages your Network (including your Equipment) 24 hours per day, excluding any of your equipment which is managed by a third party, according to the service tier that you select in the table below:

Table 1: GMNS Service Tiers

Service Features	Service Tier	
	Premium	Premium Plus
Network Commissioning (as described in the Service Guide)		
Commissioning	✓✓	✓✓
Network Management (as described in the Service Guide)		
24x7 Global Help Desk	✓	✓
Proactive Service Assurance	✓	✓
IT Service Management	✓	✓
Reporting and Value Added Services (as described in the Service Guide)		
Web-based 24x7 Online Reporting Services	✓	✓
Written Analysis Reporting*	○	✓
Application Reporting*	○	✓
Threshold Monitoring & Alerting*	○	✓
Moves, Adds, Change, Delete (as described in the Service Guide)		
In-scope Changes	✓	✓
Out of Scope Changes	**	**

Notes:

- ✓ Standard service feature with charges included in the MRC (or if no MRC applies, the fixed non-recurring charge) for your GMNS Service.
- ✓✓ Standard service feature but additional charges apply.
- Optional service feature and additional charges apply.
- * Refer to Annexure 1 for the availability for optional Services
- ** Additional charges apply depending on the nature of the Out of Scope Change.

INITIAL PERIOD

1.2 The Initial Period for each GMNS Service is 12 months or such longer period as set out in your Service Order Form.

Annexure 1 to Attachment 3 – Optional GMNS Service Features

1 OPTIONAL SERVICE FEATURES

1.1 You may request us to provide the following optional Services as part of your GMNS Service:

- (a) Managed WAN Ops;
- (b) Managed Switch;
- (c) Managed WiFi;
- (d) Managed Firewall; and
- (e) Managed SD-WAN.

2 MANAGED WAN OPS

2.1 Our Managed WAN Ops Service comprises the supply, installation, commissioning, testing and management of accredited standalone WAN Optimisation Equipment in your Network.

ELIGIBILITY

- 2.2 To acquire the Managed WAN Ops Service, you must also acquire a managed router which is enabled with quality of service.
- 2.3 If you request us to increase the bandwidth for your Managed Network Service, additional charges will apply to your Managed WAN Ops Service.

3 MANAGED SWITCH

3.1 Our Managed Switch Service comprises the supply, installation, commissioning, testing and management of accredited local area network Equipment on your Site.

3.2 No service levels apply to the Managed Switch Service.

4 MANAGED WIFI

4.1 Our Managed WiFi Service comprises the supply, installation, commissioning, testing and management of accredited wireless local area network Equipment on your Site.

4.2 No service levels apply to the Managed WiFi Service.

5 MANAGED FIREWALL

5.1 Our Managed Firewall Service comprises the supply, installation, commissioning, testing and management of accredited firewall Equipment on your Site.

5.2 No service levels apply to the Managed Firewall Service.

6 MANAGED SD-WAN

6.1 Our Managed SD-WAN Service comprises the supply, installation, commissioning, testing and management of accredited Managed SD-WAN Equipment on your Site.

6.2 You must not connect any radio communications devices or third party wireless services to your Managed SD-WAN Equipment.

7 REPORTING AND VALUE ADDED SERVICES

7.1 The table below sets out the availability of reporting and value added services for optional Services:

GMNS Service Features	Managed WAN Ops	Managed Switch	Managed WiFi (Aironet)	Managed WiFi (Meraki)	Managed Firewall	Managed Router	Managed SD-WAN			
							IWAN	Meraki	Viptela	VeloCloud
Application Reporting	x	Optional	x	x	x	Optional	x	x	x	x
Threshold Monitoring and Alerting	x	Optional	x	x	x	Optional	Optional	x	x	x
Written Analysis Reporting	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional

7.2 You can acquire the Premium Plus service tier if all reporting and value added services are available for the relevant optional Service.

Attachment 4 – Global CPE Service

This Attachment applies if we supply a Global Customer Premise Equipment (**GCPE**) Service to you as part of your Managed Network Service.

1 GCPE SERVICE

- 1.1 Our GCPE Service comprises:
- (a) supply of Equipment purchased by or rented by you;
 - (b) delivery, installation and configuration of your Equipment; and
 - (c) if selected by you, maintenance of your Equipment.
- 1.2 We will procure a licence for you to use any Software for the Equipment on the same terms that the relevant third party supplier grants us such rights. You must comply with that licence.

2 DELIVERY, INSTALLATION AND CONFIGURATION

- 2.1 We will:
- (a) deliver and install the Equipment at a time and location we have agreed in advance with you (**Installation Date**);
 - (b) test the Equipment against ready-for-use criteria agreed with you.
- 2.2 We are not responsible for:
- (a) any customisation or installation of Software other than the Operating System Software; or
 - (b) resolving problems with your Equipment which are caused by the acts or omissions of any third party or matters beyond our reasonable control.

YOUR RESPONSIBILITIES

- 2.3 You must provide a suitable physical environment for the Equipment in accordance with the Equipment specifications and operating guidelines.
- 2.4 You are responsible for the preparation of your Sites so they can accommodate the Equipment, including carrying out any room remediation work and acquiring any building services that may be required before we install the Equipment.

INSTALLATION DATE

- 2.5 If we are unable to install the Equipment by the Installation Date for any reason other than as a result of our own acts or omissions, we may charge you a rescheduling fee equal to:
- (a) 50% of the non-recurring charge payable for the installation of the Equipment; or
 - (b) if no non-recurring charge is payable for the installation of the Equipment, an amount equal to the fee charged to us by our Service Provider to reschedule the Installation Date.

3 MAINTENANCE SERVICES

- 3.1 If selected by you, we will supply maintenance services in respect of Faults in your Equipment as set out in this Attachment (**Maintenance Services**).
- 3.2 We will aim to meet the following target response times for the maintenance grade that you select for your GCPE Service:

Table 1: GCPE Maintenance Grades

Maintenance Grade*	Response Times
24x7x4	Onsite maintenance support 24 hours per day, 7 days per week. 4 hour target Response Time.
8x5x4	Onsite maintenance support 8 hours per Business Day. 4 hour target Response Time.
8x5xNext Business Day	Onsite maintenance support 8 hours per Business Day. Next Business Day target Response Time.

* Some Maintenance Grades may not be available for all of your Sites.

3.3 If you request us to provide services outside the scope of Maintenance Services, additional charges will apply which we will agree with you before performing such services.

4 RESTRICTIONS ON USE

4.1 You must not:

- (a) disassemble, decompile or otherwise reverse engineer the Equipment or Software or otherwise attempt to learn the source code, structure, algorithms or ideas underlying the Equipment or Software;
- (b) copy or modify the Equipment or Software;
- (c) publish or provide to any third party, results of any benchmark or comparison tests of the Equipment or Software; or
- (d) allow others to do any of the above.

4.2 You must:

- (a) install and use the latest Operating System Software Update if required by us to correct a reported Fault; and
- (b) promptly notify us of anything in the configuration of the Equipment or connected systems which may affect the functioning of the Equipment or Fault detection.

5 EXPORT REGULATIONS

5.1 You acknowledge that the Equipment (including the Operating System Software) and technology or direct products thereof, supplied by us under this Attachment are subject to export controls under the laws and regulations of the United States (U.S.).

5.2 You must comply and must ensure that users of the Equipment (and separately the Operating System Software) comply, to the extent required by law to do so, with the U.S. Foreign Corrupt Practices Act and all applicable export laws, restrictions and regulations of any United States or foreign agency or authority and not to export or re-export, or allow the export or re-export of, any product, technology or information it obtains or learns pursuant to this Attachment (or any direct product thereof) in violation of any such laws, restrictions or regulations by you or the user to the extent you are subject to and required by law to comply with such laws, restrictions or regulations.

5.3 You indemnify us against all loss, damage, liability, costs or expenses incurred by us as a result of a claim against us arising from or in connection with any breach of clause 5.2 above by you.

Annexure 1 to Attachment 4 – Purchase of Equipment

This Annexure applies if you purchase Equipment from us.

1 TITLE AND RISK

- 1.1 Title to the Equipment passes to you once you have paid us in full for the Equipment. Until that time, you hold the Equipment on our behalf.
- 1.2 Risk of loss or damage to the Equipment passes to you on delivery.

2 INSURANCE

- 2.1 On delivery and until you have paid in full for the Equipment, you must, at your cost, obtain and maintain adequate insurance for the full value of the Equipment. If requested by us, you must provide us with written evidence of the currency of such insurance.

3 RECOVERY OF EQUIPMENT

- 3.1 Without limiting our rights under the Agreement or at law, if you do not pay us for the Equipment on time, at our request, you must provide us with access to the Site(s) where the Equipment is located so we can recover the Equipment.
- 3.2 If we are unable to recover the Equipment within 14 days of our request under clause 3.1, you must pay us any reasonable costs we incur in attempting to recover the Equipment, including the cost of replacing it.

Annexure 2 to Attachment 4 – Rental of Equipment

This Attachment applies if you rent Equipment from us.

1 TITLE AND RISK

- 1.1 Title to the Equipment remains with us and does not pass to you at any time.
- 1.2 Risk of loss or damage to the Equipment transfers to you on delivery.

2 INSURANCE

- 2.1 You must, at your cost, obtain and maintain adequate insurance for the full value of the Equipment. If requested by us, you must provide us with written evidence of the currency of such insurance.

3 RECOVERY OF EQUIPMENT

- 3.1 Without limiting our rights under the Agreement or at law, if the Agreement or your Managed Network Service is cancelled or terminated for any reason, you must provide us with access to the Site(s) where the Equipment is located at our request so that we can recover the Equipment.
- 3.2 If we are unable to recover the Equipment within 14 days of our request under clause 3.1, you must pay us for any reasonable costs we incur in attempting to recover the Equipment, including the cost of replacing it.

4 USE OF EQUIPMENT

- 4.1 You must:
 - (a) keep the Equipment in good working order, condition and repair;
 - (b) not sell, dispose of or encumber the Equipment in any way; and
 - (c) allow us (or our Personnel) to inspect the Equipment at any time on reasonable notice.

5 ALTERATIONS, MODIFICATIONS AND REPAIRS

- 5.1 You must not alter, modify or repair the Equipment without our prior written consent. If you make any alterations, modifications or repairs to the Equipment and it impairs the condition of the Equipment or diminishes its use or value, we may charge you an additional repair fee.
- 5.2 If you replace any part of the Equipment with our consent, you must ensure that the replacement part is of equal or better quality than the removed part, and is compatible with the Equipment.
- 5.3 You may remove any part of the Equipment which you have added, provided that:
 - (a) the new part was in addition to, and did not replace, any original part of the Equipment; and
 - (b) you do not cause any damage to the Equipment or diminish its use or value by removing the part.
- 5.4 If you do not remove any part which you have added to the Equipment, that part will become part of the Equipment at the end of the Initial Period, and we may charge you an additional fee to remove the additional part.
- 5.5 You are responsible for all costs relating to any alteration, modification or repair which you make to the Equipment, including any loss or damage which you may suffer as a result of that alteration, modification or repair.

Attachment 5 – Service Levels – Global Services

1 SITE SURVEY

- 1.1. After acceptance of a Service Order Form, we will carry out a service delivery site survey (**Site Survey**) for the relevant Service. If the Site Survey reveals that the Service is unavailable or additional costs (including costs arising from capital works, on-site cabling or wiring or building management charges) are required to deliver the Service, we may propose an amendment to the Service and the charges for the Service by notice to you. If you do not accept the amended Service or the amended charges, you may cancel the Service provided that you reimburse us any third party costs that we reasonably incur in relation to your termination of the impacted Service.

2 SITE PROVISIONING TIME

- 2.1 After we carry out the Site Survey, we will provide you with a target service delivery completion date for your end-to-end Managed Network Service (Ready for Service (**RFS Date**)).
- 2.2 If we do not deliver any part of a Service which is part of your Managed Network Service to you by the RFS Date other than as a result of an Exclusion Event, you may claim a credit of 5% of the MRC in respect of the undelivered part(s) of the Service(s) for each Business Day past the RFS Date, up to a maximum credit of 100% of the first month’s MRC for the delayed Managed Network Service.
- 2.3 If we do not deliver any part of a Service which is part of your Managed Network Service to you within 31 days of the RFS Date other than as a result of an Exclusion Event, you may cancel the undelivered part(s) of the Service(s) of your Managed Network Service by notifying us in writing within 15 days of the expiry of the 31 day period.
- 2.4 We will provide you with a period of 2 Business Days from the date that we notify you that the Managed Network Service is ready for testing (**Test Period**), to test the Service for any Provisioning Fault and accept the Service.

3 SITE AVAILABILITY

- 3.1 Site Availability is calculated according to the following formula:-

$$Site\ Availability = \frac{X - (sum\ of\ all\ Downtimes)}{X} \times 100\%$$

Where:

“X” is the number of minutes in a given month e.g. 30 x 24 x 60 = 43,200 for a 30 day month.

“Downtime” is the number of minutes that any given Site of your Managed Network Service is Unavailable.

- 3.2 The Site Availability targets only apply to each end-to-end Managed Network Service.
- 3.3 We will aim to meet the Site Availability targets set out in Table 1 below, depending on the resilience design that you select under Table 1 below.-

Table 1: Site Availability Targets Hybrid WAN (IPVPN & Internet)

Scenario	Service Type 1	Service Type 2	Pop Resiliency	Site Availability
1	Internet - GIE Economy	NA	NA	NA
2	Internet - GIE standard	N/A	NA	98.50%

3	Internet – GIE Economy	Internet – GIE Economy	NA	NA
4	Internet – GIE Standard	Internet – GIE Economy	NA	98.50%
5	Internet - GIE standard	Internet - GIE standard	NA	99.50%
6	IPVPN / GID	N/A	Single pop	99.90%
7	IPVPN / GID	Internet - GIE Economy	Single pop	99.90%
8	IPVPN / GID	Internet - GIE Standard	Single pop	99.95%
9	IPVPN / GID	IPVPN / GID	Single pop	99.98%
10	IPVPN / GID	IPVPN / GID	Dual pop	99.995%
11	2x IPVPN / GID	2x Internet - GIE standard	Dual PoPs	100%

3.4 If your Managed Network Service is Unavailable in a month, you may claim a credit as a percentage of the MRC for the impacted Managed Network Service, calculated in accordance with Table 2 below depending on the redundancy option you acquire from us pursuant Table 1 of clause 3.3 above.

Table 2: Site Availability Credits

Service Resilience Design (per Table 1 above)	Site Availability calculated as a percentage	Credit
Scenario 1, 2, 3, 4 & 5	NA	NA
Scenarios 6 & 7	99.00% - 99.89%	5% of MRC
Scenario 8	99.00% -99.94%	
Scenario 9	99.00% -99.97%	
Scenario 10	99.00% -99.994%	
Scenario 11	99.00% -99.999%	
Scenario 6, 7, 8, 9, 10 & 11	<99.00%	10% of MRC

3.5 If a Managed Network Service experiences either:

- (a) a single period of Unavailability in excess of 24 hours in any month; or
- (b) three or more periods of Unavailability of eight or more hours each in any six month period,

(either being a “Chronic Outage”)

you may cancel the impacted your Managed Network Service (or an individual Service component of your Managed Network Service) without the payment of any Early Termination Charges, by notifying us in writing within 15 days of the Chronic Outage.

4 RESPONSE TIMES AND MEAN-TME-TO-RESTORE

RESPONSE TIME TARGETS

4.1 We will assign a priority level to each Fault on your Managed Network Service and aim to meet the Response Time targets and Status Report targets for that priority level set out in Table 3 below.

Table 3: Response Time and Status Report Targets

Priority Level	Response Time target	Status report target
Priority 1 – your Managed Network Service is Unavailable at a major Site (or multiple Sites) causing critical impacts to your business operations.	15 minutes	Every hour
Priority 2 – your Managed Network Service is Unavailable at a minor Site, or customer service is severely degraded impacting significant aspects of your business operations.	15 minutes	Every 2 hours
Priority 3 – your Managed Network Service is degraded, noticeably impaired but most of your business operations continue.	30 minutes	Every 3 hours
Priority 4 – you require information or assistance in respect of your Managed Network Service.	30 minutes	Every 24 hours

MTTR TARGETS

4.2 The MTTR targets only apply if you acquire our GMNS Service.

4.3 We will aim to meet the following MTTR targets in respect of all the priority level faults experienced by your Managed Network Service each month:

Table 4: MTTR Targets

Priority Level Faults	MTTR Target
Priority 1	100% restored (or work around) in 4 hours
Priority 2	100% restored (or work around) in 6 hours
Priority 3	100% restored (or work around) in 8 hours
Priority 4	100% restored (or work around) in 24 hours

4.4 MTTR is calculated according to the following formula:

$$\text{Average MTTR} = \frac{\text{Total Downtime for the Managed Network Service at a Site}}{\text{Total number of Fault tickets for that Site}}$$

Where:

“Downtime” is the number of minutes that your Managed Network Service is Unavailable.

4.5 If the Average MTTR for priority level 1, 2 or 3 Faults in a month exceeds the applicable MTTR target, you may claim a credit as a percentage of the MRC for the impacted Managed Network Service in accordance with Tables 5 to 7 below.

Table 5: MTTR Credits – Priority 1

Average MTTR	Credit
Between 241 minutes (4hr) and 360 minutes (6hr)	5% of MRC
Between 361 (6hr) minutes and 480 (8hr) minutes	7% of MRC
Between 481 (8hr) minutes and 960 (16hr) minutes	10% of MRC
Between 961 (16hr) minutes and 1440 (24hr) minutes	12% of MRC
In excess of 24 hours	15% of MRC

Table 6: MTTR Credits - Priority 2

Average MTTR	Credit
Between 361 (6hr) minutes and 480 (8hr) minutes	5% of MRC
Between 481 (8hr) minutes and 960 (16hr) minutes	7% of MRC
Between 961 (16hr) minutes and 1440 (24hr) minutes	10% of MRC
In excess of 24 hours	12% of MRC
In excess of 48 hours	15% of MRC

Table 7: MTTR Credits - Priority 3

Average MTTR	Credit
Between 481 (8hr) minutes and 960 (16hr) minutes	5% of MRC
Between 961 (16hr) minutes and 1440 (24hr) minutes	7% of MRC
In excess of 24 hours	10% of MRC
In excess of 48 hours	12% of MRC
In excess of 96 hours	15% of MRC

5 ROUND TRIP DELAY (RTD)

- 5.1 The RTD targets in this Attachment only apply to our IPVPN and GID Standard Services:
- 5.2 We will aim to meet the PoP-to-PoP RTD targets applicable to your IPVPN and GID Standard Services, as advised by us.
- 5.3 If our average IPVPN PoP-to-PoP RTD performance over the period of a month exceeds the IPVPN PoP-to-PoP RTD target for a particular CoS by 20%, you may claim a credit for the impacted IPVPN CoS of 10% MRC.
- 5.4 If our average GID Standard PoP-to-PoP RTD performance over the period of a month exceeds the GID Standard PoP-to-PoP RTD target by 20%, you may claim a credit for the impacted GID standard CoS of 5% MRC.

6 PACKET DELIVERY RATIO (PDR)

- 6.1 The PDR targets in this Attachment only apply to our IPVPN and GID Standard Services:
- 6.2 We will aim to meet the PDR targets set out in Table 7 below.

Table 7: PDR Targets

PDR Targets (%)						
IPVPN						GID
Voice CoS	Video CoS	Critical Data CoS	Interactive Data CoS	Standard Data CoS	Low Priority Data CoS	GID Standard
99.995%	99.99%	99.95%	99.95%	99.95%	99.9%	99.0%

- 6.3 If our average IPVPN PDR performance over the period of a month exceeds the IPVPN PDR target for a particular CoS by 20%, you may claim a credit for the impacted IPVPN CoS of 10% MRC.
- 6.4 If our average GID Standard PDR performance over the period of a month exceeds the GID Standard PDR target by 20%, you may claim a credit for the impacted GID standard CoS of 5% MRC.

7 JITTER

- 7.1 The Jitter targets only apply to the IPVPN Voice CoS.
- 7.2 We will aim to meet a monthly average PoP-to-PoP Jitter target of:
 - (a) ≤ 35 milliseconds for South Africa;
 - (b) ≤ 15 milliseconds for China, India and Latin Americas; and
 - (c) ≤ 5 milliseconds for all other locations.
- 7.3 If our average IPVPN PoP-to-PoP Jitter performance over the period of a month exceeds the IPVPN PoP-to-PoP Jitter target for a Voice CoS, you may claim a credit for the impacted IPVPN Voice CoS of 10% MRC.

8 SERVICE CREDIT CAP

- 8.1 The total credits payable to you under this Schedule in respect of a Managed Network Service in a particular month under this Schedule are capped at 50% of the MRC for that Managed Network Service.

Attachment 6 – Service Availability – GID PBS Services

1. Service Provisioning Times

- 1.1. If we do not deliver GID PBS Services to you within 60 days of the RFS Date other than as a result of an Exclusion Event, you may cancel the affected Service by notifying us in writing within 10 days of the expiry of the 60-day period.

2. Service Availability Targets

- 2.1 For the purpose of this Attachment, Service Availability is calculated according to the following formula:-

$$\text{Service Availability} = \frac{X - (\text{sum of all Downtimes})}{X} \times 100\%$$

Where:

“X” is the number of minutes in a given month e.g. 30 x 24 x 60 = 43,200 for a 30 day month.

“Downtime” is the number of minutes that your Service is Unavailable.

- 2.2 In relation to GID PBS Services, we will aim to meet the following Service Availability targets:

Table 1: Service Availability for GID PBS Services

Service Type	Service Availability Target
PoP-to-PoP	99.80%
Site-to-Site (except where the Local Access is provided over DSL in which case the Site-to-Site Service Availability target does not apply)	N/A

If a GID PBS Service does not meet the Service Availability target in a month, you may claim a credit calculated in accordance with Table 2.

Table 2: Service Availability Credits - GID PBS Services

Service Type	Availability calculated as a percentage	Credit
PoP-to-PoP	<99.80 %	0.5% of MRC

- 2.2. You may cancel GID PBS Service (excluding GID PBS (Economy) Service) due to Chronic Outage without the payment of any Early Termination Charges by notifying us in writing within 15 days of the Chronic Outage, PROVIDED THAT the Unavailability is caused by the PBS IP core network (and not caused by the Local Loop or the ISP network (eg. CU, CM, CT or any other ISPs) in China).

3. Packet Delivery Ratio (PDR)

- 3.1. We will aim to meet the monthly GID PBS (Standard) Service PDR targets set out in Table 3.
- 3.2. If we do not meet the PDR targets for GID PBS (Standard) Service in a month, you may claim credits for the impacted GID PBS (Standard) Service as set out in Table 3.

Table 3: PDR Targets and Credits

Service Type	PDR Target	Credit
GID PBS (Standard) Service	99.5%	3% of MRC

4 Round Trip Delay (RTD)

- 4.1 We will aim to meet the RTD targets applicable to your GID PBS (Standard) Services and notified to you.
- 4.2 If the RTD on a GID PBS (Standard) Service exceeds the RTD target by 20% for that Service in a month, you may

claim the following credit for the impacted GID PBS (Standard) Service of 3% MRC.

5 Maximum Service Credit Entitlement Per Month for GID PBS Service

- 5.1 Notwithstanding anything to the contrary in this Service Schedule, for GID PBS Service, you acknowledge and agree that for any given month, you are entitled to claim up to a maximum service credit of 10% of the relevant MRC per month.