

Product Description

nbn[®] Sky Muster[®] Plus Product Module

nbn[®] Sky Muster[®] Plus Interim Agreement



Product Description

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nbn[®] Sky Muster[®] Plus Interim Agreement

Version	Description	Effective Date
1.0	First issued version of nbn [®] Sky Muster [®] Plus Interim Agreement	Execution Date
1.1	Amendments to introduce 25GB+ Plan, unmetered inclusions changes, Data Block and Top-Up	Unmetered inclusions changes: 1 April 2020 All other changes: 15 May 2020
1.2	Amendments in respect of eligibility restriction notified on 1 February 2021	1 March 2021
1.3	Amendments in respect of IPv4 Dynamic Network Address Translation overload IP Address Scheme implementation	1 April 2021
1.4	Amendments to shorten Peak Period and changes to Off-peak Period Metered Data and Shaped Period	1 July 2022
1.5	Amendments to introduce 24x7 Uncapped Data Usage – Burst 100 Plan and adjustments to NTD throughput limit	1 June 2023
1.6	Amendments to introduce: (1) two new Plans ("24x7 Uncapped Data Usage – 25" and "24x7 Uncapped Data Usage – 50"); (2) change to the 24x7 Uncapped Data Usage – Burst 100 Plan; (3) Public 1:1 NAT on request; (4) a voice traffic class; and (5) changes allowing up to 4 Sky Muster [®] Plus services per NTD.	1 December 2023
1.7	WBA5 and other amendments	1 December 2023

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Environment

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Introduction

This **nbn**[®] Sky Muster Plus Product Description describes the **nbn**[®] Sky Muster[®] Plus Product. It forms part of the **nbn**[®] Sky Muster[®] Plus Interim Agreement.

Roadmap

A roadmap describing the structure of this document follows for the assistance of RSP.

Part A: The **nbn**[®] Sky Muster[®] Plus Product

Part A describes what the **nbn**[®] Sky Muster[®] Plus Product is.

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Part E: General conditions of supply

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Part A: The nbn® Sky Muster® Plus Product

nbn® Sky Muster® Plus:

- is a Layer 3 and above service that carries traffic between a UNI used to serve a Premises and the nbn® Upstream Network Boundary;
- is supplied by means of the SMP Network;
- enables RSP or its Downstream Service Providers to supply a Carriage Service or Content Service to a Premises; and
- comprises required Product Components, which RSP must acquire as part of nbn® Sky Muster® Plus, and optional Product Features, which RSP may elect to acquire.

Type	Product Component / Product Feature
Product Components (required)	Plan; UNI
Product Feature (optional)	Plan Test Feature, Data Block, Top-Up

Note: nbn supplies the Plan to RSP on the condition that RSP also acquires a UNI in conjunction with that Plan.

Part B: Required Product Components

Section 1 describes the Plans that RSP must order for each Premises where **nbn** supplies **nbn**[®] Sky Muster[®] Plus to RSP.

1. Plans

1.1 General Plan description

- (a) A **Plan** is an Ethernet-based Layer 3 and above virtual connection on the SMP Network, that carries End User traffic to and from a UNI used to serve a Premises.
- (b) RSP must order a Plan for each eligible Premises to which **nbn**[®] Sky Muster[®] Plus will be supplied.
- (c) The available Plans are described in section 1.2.
- (d) **nbn** will map one Plan to any UNI used to serve the relevant Premises and will not map more than one Plan to the same UNI.

1.2 Plans

The Plans are described by reference to the Plan Sub-features described in Part C: Plan Sub-features. RSP may select one of the Plans below in respect of each UNI used to serve eligible Premises to which **nbn**[®] Sky Muster[®] Plus will be supplied:

- (a) **25GB+ Plan**, which comprises the following Plan Sub-features:

Plan Sub-feature	Configuration	
	Access Rate	Downstream Mbps (PIR)
	25 (with Supplementary Burst)	5 (with Supplementary Burst)
Peak Period Metered Data Allowance	25 GB ¹	
Off-peak Period Metered Data Allowance	N/A	
Peak Period Shaping Rate	Downstream Kbps (PIR)	Upstream Kbps (PIR)
	512	256
Off-peak Period Shaping Rate	Downstream Kbps (PIR)	Upstream Kbps (PIR)
	N/A	N/A
Voice Traffic Class	As set out in section 4.4	
IP Address Scheme	As set out in section 5	
nbn [®] Upstream Network Boundary	Internet Point of Presence	

Metered Data	Peak Period	Off-peak Period	
	Traffic Profile 1	N/A	
Time of Day Data (Unmetered Data)	Traffic Profile	Shaped Periods	Time of Day Limit Rate
	Traffic Profile 2	12:00 am to 11:59 pm daily	256 Kbps ²
Other Unmetered Data which may be subject to the Time of Day Limit Rate	Traffic Profile	Shaped Periods	Time of Day Limit Rate
	Traffic Profile 1	Off-peak Period	256 Kbps ²

Notes:

1. The Peak Period Metered Data Allowance and any Off-peak Period Metered Data Allowance include both upload and download usage as set out in section 4.1(a).
2. To be read in conjunction with section 4.1, which describes the operation of Unmetered Data (which includes Time of Day Data).

(b) **50GB+ Plan**, which comprises the following Plan Sub-features:

Plan Sub-feature	Configuration	
Access Rate	Downstream Mbps (PIR)	Upstream Mbps (PIR)
	25 (with Supplementary Burst)	5 (with Supplementary Burst)
Peak Period Metered Data Allowance	50 GB ¹	
Off-peak Period Metered Data Allowance	N/A	
Peak Period Shaping Rate	Downstream Kbps (PIR)	Upstream Kbps (PIR)
	512	256
Off-peak Period Shaping Rate	Downstream Kbps (PIR)	Upstream Kbps (PIR)
	N/A	N/A
Voice Traffic Class	As set out in section 4.4	
IP Address Scheme	As set out in section 5	
nbn [®] Upstream Network Boundary	Internet Point of Presence	
Metered Data	Peak Period	Off-peak Period
	Traffic Profile 1	N/A

Time of Day Data (Unmetered Data)	Traffic Profile	Shaped Periods	Time of Day Limit Rate
	Traffic Profile 2	12:00 am to 11:59 pm daily	256 Kbps ²
Other Unmetered Data which may be subject to the Time of Day Limit Rate	Traffic Profile	Shaped Periods	Time of Day Limit Rate
	Traffic Profile 1	Off-peak Period	256 Kbps ²

Notes:

1. The Peak Period Metered Data Allowance and any Off-peak Period Metered Data Allowance include both upload and download usage as set out in section 4.1(a).
2. To be read in conjunction with section 4.1, which describes the operation of Unmetered Data (which includes Time of Day Data).

(c) **100GB+ Plan**, which comprises the following Plan Sub-features:

Plan Sub-feature	Configuration		
Access Rate	Downstream Mbps (PIR)	Upstream Mbps (PIR)	
	25 (with Supplementary Burst)	5 (with Supplementary Burst)	
Peak Period Metered Data Allowance	100 GB ¹		
Off-peak Period Metered Data Allowance	N/A		
Peak Period Shaping Rate	Downstream Kbps (PIR)	Upstream Kbps (PIR)	
	512	256	
Off-peak Period Shaping Rate	Downstream Kbps (PIR)	Upstream Kbps (PIR)	
	N/A	N/A	
Voice Traffic Class	As set out in section 4.4		
IP Address Scheme	As set out in section 5		
nbn [®] Upstream Network Boundary	Internet Point of Presence		
Metered Data	Peak Period	Off-peak Period	
	Traffic Profile 1	N/A	
Time of Day Data (Unmetered Data)	Traffic Profile	Shaped Periods	Time of Day Limit Rate
	Traffic Profile 2	12:00 am to 11:59 pm daily	256 Kbps ²

Other Unmetered Data which may be subject to the Time of Day Limit Rate	Traffic Profile	Shaped Periods	Time of Day Limit Rate
	Traffic Profile 1	Off-peak Period	256 Kbps ²

Notes:

1. The Peak Period Metered Data Allowance and any Off-peak Period Metered Data Allowance include both upload and download usage as set out in section 4.1(a).
2. To be read in conjunction with section 4.1, which describes the operation of Unmetered Data (which includes Time of Day Data).

(d) **150GB+ Plan**, which comprises the following Plan Sub-features:

Plan Sub-feature	Configuration		
Access Rate	Downstream Mbps (PIR)	Upstream Mbps (PIR)	
	25 (with Supplementary Burst)	5 (with Supplementary Burst)	
Peak Period Metered Data Allowance	150 GB ¹		
Off-peak Period Metered Data Allowance	N/A		
Peak Period Shaping Rate	Downstream Kbps (PIR)	Upstream Kbps (PIR)	
	512	256	
Off-peak Period Shaping Rate	Downstream Kbps (PIR)	Upstream Kbps (PIR)	
	N/A	N/A	
Voice Traffic Class	As set out in section 4.4		
IP Address Scheme	As set out in section 5		
nbn [®] Upstream Network Boundary	Internet Point of Presence		
Metered Data	Peak Period	Off-peak Period	
	Traffic Profile 1	N/A	
Time of Day Data (Unmetered Data)	Traffic Profile	Shaped Periods	Time of Day Limit Rate
	Traffic Profile 2	12:00 am to 11:59 pm daily	256 Kbps ²
Other Unmetered Data which may be subject to the Time of Day Limit Rate	Traffic Profile	Shaped Periods	Time of Day Limit Rate
	Traffic Profile 1	Off-peak Period	256 Kbps ²

Notes:

1. The Peak Period Metered Data Allowance and any Off-peak Period Metered Data Allowance include both upload and download usage as set out in section 4.1(a).
2. To be read in conjunction with section 4.1, which describes the operation of Unmetered Data (which includes Time of Day Data).

(e) **24x7 Uncapped Data Usage – 100 Plan**, which comprises the following Plan Sub-features:

Plan Sub-feature	Configuration		
	Access Rate	Downstream Mbps (PIR)	Upstream Mbps (PIR)
100		5 (with Supplementary Burst of up to 10Mbps ¹)	
Peak Period Metered Data Allowance	N/A		
Off-peak Period Metered Data Allowance	N/A		
Peak Period Shaping Rate	Downstream Kbps (PIR)	Upstream Kbps (PIR)	
	N/A	N/A	
Off-peak Period Shaping Rate	Downstream Kbps (PIR)	Upstream Kbps (PIR)	
	N/A	N/A	
Voice Traffic Class	As set out in section 4.4		
IP Address Scheme	As set out in section 5		
nbn [®] Upstream Network Boundary	Internet Point of Presence		
Metered Data	Peak Period	Off-peak Period	
	N/A	N/A	
Time of Day Data (Unmetered Data)	Traffic Profile	Shaped Periods	Time of Day Limit Rate
	Traffic Profile 2	12:00 am to 11:59 pm daily	256 Kbps ²
Other Unmetered Data which may be subject to the Time of Day Limit Rate	Traffic Profile	Shaped Periods	Time of Day Limit Rate
	Traffic Profile 1	Off-peak Period	256 Kbps ²

Notes:

1. This specified Information Rate represents the potential maximum Information Rate. It is not a PIR commitment. To be read in conjunction with section 4.2, which describes the operation of the Supplementary Burst concept.
2. To be read in conjunction with section 4.1, which describes the operation of Unmetered Data (which includes Time of Day Data).

- (f) **24x7 Uncapped Data Usage – 25 Plan**, which comprises the following Plan Sub-features:

Plan Sub-feature	Configuration		
Access Rate	Downstream Mbps (PIR)	Upstream Mbps (PIR)	
	25	5	
Peak Period Metered Data Allowance	N/A		
Off-peak Period Metered Data Allowance	N/A		
Peak Period Shaping Rate	Downstream Kbps (PIR)	Upstream Kbps (PIR)	
	N/A	N/A	
Off-peak Period Shaping Rate	Downstream Kbps (PIR)	Upstream Kbps (PIR)	
	N/A	N/A	
Voice Traffic Class	As set out in section 4.4		
IP Address Scheme	As set out in section 5		
nbn [®] Upstream Network Boundary	Internet Point of Presence		
Metered Data	Peak Period	Off-peak Period	
	N/A	N/A	
Time of Day Data (Unmetered Data)	Traffic Profile	Shaped Periods	Time of Day Limit Rate
	Traffic Profile 2	12:00 am to 11:59 pm daily	256 Kbps ¹
Other Unmetered Data which may be subject to the Time of Day Limit Rate	Traffic Profile	Shaped Periods	Time of Day Limit Rate
	Traffic Profile 1	Off-peak Period	256 Kbps ¹

Note:

1. To be read in conjunction with section 4.1, which describes the operation of Unmetered Data (which includes Time of Day Data).

- (g) **24x7 Uncapped Data Usage – 50 Plan**, which comprises the following Plan Sub-features:

Plan Sub-feature	Configuration	
Access Rate	Downstream Mbps (PIR)	Upstream Mbps (PIR)
	50	5 (with Supplementary Burst of up to 10Mbps ¹)

Peak Period Metered Data Allowance	N/A		
Off-peak Period Metered Data Allowance	N/A		
Peak Period Shaping Rate	Downstream Kbps (PIR)	Upstream Kbps (PIR)	
	N/A	N/A	
Off-peak Period Shaping Rate	Downstream Kbps (PIR)	Upstream Kbps (PIR)	
	N/A	N/A	
Voice Traffic Class	As set out in section 4.4		
IP Address Scheme	As set out in section 5		
nbn [®] Upstream Network Boundary	Internet Point of Presence		
Metered Data	Peak Period	Off-peak Period	
	N/A	N/A	
Time of Day Data (Unmetered Data)	Traffic Profile	Shaped Periods	Time of Day Limit Rate
	Traffic Profile 2	12:00 am to 11:59 pm daily	256 Kbps ²
Other Unmetered Data which may be subject to the Time of Day Limit Rate	Traffic Profile	Shaped Periods	Time of Day Limit Rate
	Traffic Profile 1	Off-peak Period	256 Kbps ²

Notes:

1. This specified Information Rate represents the potential maximum Information Rate. It is not a PIR commitment. To be read in conjunction with section 4.2, which describes the operation of the Supplementary Burst concept.
2. To be read in conjunction with section 4.1, which describes the operation of Unmetered Data (which includes Time of Day Data).

Section 2 describes the UNI to which **nbn** supplies **nbn**[®] Sky Muster[®] Plus.

2. User Network Interface (UNI)

2.1 UNI description

- (a) The **User Network Interface** or **UNI** is a physical port to which **nbn** supplies **nbn**[®] Sky Muster[®] Plus in respect of a Premises.
- (b) **nbn** will make one type of UNI available in respect of a Premises, the UNI-D:

Type of UNI	Port	Location of UNI port	Number of physical ports on NTD (if any)
UNI-D	Ethernet	NTD	4

- (c) An NTD supplied for **nbn**[®] Sky Muster[®] Plus may also be used for **nbn**[®] Ethernet (Satellite).
- (d) An NTD supplied for **nbn**[®] Ethernet (Satellite) may also be used for **nbn**[®] Sky Muster[®] Plus.
- (e) Access to and use of a UNI used to serve a Premises is subject to any availability rules determined by **nbn** from time to time.
- (f) The number of UNI-Ds available at a Premises served by the SMP Network depends on the number of NTDs installed at that Premises.
- (g) The UNI-D has an electrical interface and will not be made available with an optical interface.
- (h) RSP must acquire a UNI-D in conjunction with each Plan.

Part C: Plan Sub-features

Sections 3 to 5 describe the **nbn**[®] Sky Muster[®] Plus Plan Sub-features.

3. Plan Sub-features generally

The Plan Sub-features are:

- (a) supplied as part of Plans as set out in section 1; and
- (b) not orderable by RSP independently or in configurations other than those set out in section 1. **nbn** will allow RSP to select between **nbn**-configured options where multiple options are specified.

4. Bandwidth profiles and data inclusions

4.1 Bandwidth profiles and data inclusions generally

- (a) Subject to sections 4.1(b) to 4.1(f), 4.4, 7(a) and 8(b), throughout each calendar month, the bandwidth profile of each Plan will change based on:
 - (i) the time of day;
 - (ii) type of data being transferred; and
 - (iii) the aggregate data of that type transferred (including both uploads and downloads) up to a given point in the calendar month,

as follows:

Time of day	Data type being transferred	Aggregate data transferred in calendar month	Applicable bandwidth profile
Peak Period	Metered Data	Up to Peak Period Metered Data Allowance (if applicable)	Access Rate
		More than Peak Period Metered Data Allowance (if applicable)	Peak Period Shaping Rate
	Unmetered Data	N/A	See section 4.1(b)
Off-peak Period	Metered Data	Up to Off-peak Period Metered Data Allowance (if applicable)	Access Rate
		More than Off-peak Period Metered Data Allowance (if applicable)	Off-peak Period Shaping Rate
	Unmetered Data	N/A	See section 4.1(b)

- (b) Despite section 4.1(a) but subject to section 4.1(c), throughout each calendar month, the bandwidth profile of each Plan in respect of Unmetered Data, during the following times of day, will be as follows:

Data type being transferred	Time of day	Applicable bandwidth profile
Unmetered Data that is not Time of Day Data	Peak Period	Access Rate
	Off-peak Period	See section 4.1(c)
Time of Day Data	Shaped Periods	Time of Day Limit Rate

	All times other than Shaped Periods	Access Rate
(c)	Despite section 4.1(b):	
	(i) unless and until otherwise notified by nbn by giving 1 month's notice to RSP, the bandwidth profile in respect of Traffic Profile 2 will be the applicable Access Rate at all times of day, including during Shaped Periods; and	
	(ii) after the Time of Day Limit Rate begins applying pursuant to section 4.1(c)(i), the Information Rate applicable to:	
	(A)	Traffic Profile 1 may from time to time, at nbn 's discretion, be reduced from the Access Rate to the Time of Day Limit Rate during Off-peak Periods; and
	(B)	Traffic Profile 2 may from time to time, at nbn 's discretion, exceed the Time of Day Limit Rate during Shaped Periods.
(d)	For clarity, Unmetered Data (including Time of Day Data) will not count towards any Peak Period Metered Data Allowance or Off-peak Period Metered Data Allowance.	
(e)	Each bandwidth profile in section 4.1(a) and 4.1(b) specifies the maximum data throughput that the SMP Network is designed to make available to RSP at the UNI in respect of a Plan during the time that bandwidth profile applies, and not the minimum data throughput.	
(f)	If a Plan is Activated part way through a calendar month, the Peak Period Metered Data Allowance and Off-peak Period Metered Data Allowance for that Plan for the remainder of that calendar month may, at nbn 's discretion, be calculated on a pro-rata basis by reference to the number of days remaining in that calendar month.	

4.2 Access Rates

- (a) In respect of the Access Rate for a Plan, **Supplementary Burst** refers to the ability for data transfers under that bandwidth profile to exceed the specified Peak Information Rate.
- (b) Data transfers subject to an Access Rate with Supplementary Burst may or may not burst above the applicable PIR in any given period.
- (c) Where an Access Rate's Supplementary Burst includes a reference to a potential maximum Information Rate, such a reference:
 - (i) is a reference to the maximum Information Rate that may be achieved by means of the Supplementary Burst; and
 - (ii) is a potential maximum in optimal conditions and is not a reference to the maximum Information Rate that may be achieved by every, or any, Ordered Product (and, subject to section 4.2(d), speeds achievable may be significantly lower).
- (d) An Ordered Product may only transfer data at its PIR once during a 24 hour period, and only if the Ordered Product has not exceeded either of its Peak Period Metered Data Allowance or its Off-peak Period Metered Data Allowance in that 24 hour period.

4.3 Traffic Profiles for Metered Data and Unmetered Data

- (a) The Traffic Profiles for Metered Data and Unmetered Data are:

- (i) **Traffic Profile 1**, which means such traffic as determined by **nbn** from time to time, which may include some traffic related to streaming video content, and traffic accessed via a VPN; and
 - (ii) **Traffic Profile 2**, which means such traffic as determined by **nbn** from time to time, which may include some traffic related to peer to peer applications, operating system updates, software and application updates, gaming software updates, cloud storage platforms and any traffic related to applications which **nbn** cannot identify (but does not include traffic that forms part of Traffic Profile 1).
- (b) Details of specific traffic included in each Traffic Profile from time to time are available to RSP on request in accordance with standard processes as determined by **nbn** from time to time.

4.4 Voice Traffic Class

- (a) Each Plan will be configured by default to partition the Access Rate to supply a downstream Information Rate of up to 0.15 Mbps (PIR) and upstream Information Rate of up to 0.15 Mbps (PIR) that is targeted towards:
- (i) real-time, voice applications with low bit rate; and
 - (ii) traffic performance that is aligned to the characteristics of the DSCP Expedited Forwarding per-hop behaviour described in RFC4594,
- (Voice Traffic Class).**
- (b) Voice Traffic Class may be:
- (i) disabled, and subsequently re-enabled, on request by RSP; and
 - (ii) accessed for traffic in accordance with addressing requirements which may be specified by **nbn** from time to time.
- (c) RSP acknowledges that Voice Traffic Class:
- (i) may only transfer data at the PIR stated in section 4.4(a) once during a 24 hour period; and
 - (ii) is not capable of Supplementary Burst.

5. IP Address Scheme

5.1 IP Address Scheme generally

- (a) Subject to sections 5.2 to 5.4, **nbn** will support one of the two following IP Address Schemes in respect of each Plan:
- (i) Public Dynamic Network Address Translation (NAT) overload in accordance with section 5.2; or
 - (ii) Public 1:1 NAT in accordance with section 5.3.
- (b) The IP Address Scheme that **nbn** will support for a given Plan will be determined in accordance with section 5.4.

5.2 Public Dynamic NAT overload

- (a) **nbn** will allocate:

- (i) a private IP address to each item of RSP Equipment or End User Equipment attached to a UNI-D; and
 - (ii) an internet-accessible public IP address to each Plan for which the **nbn**[®] Upstream Network Boundary is the Internet Point of Presence.
- (b) **nbn** will link the private IP addresses allocated under section 5.2(a)(i) with the public IP address allocated under section 5.2(a)(ii) using Dynamic NAT overload.
- (c) **nbn** may change the public IP address allocated under section 5.2(b) at its discretion:
- (i) from time to time; and
 - (ii) without limiting section 5.2(c)(i), upon request by RSP.

5.3 Public 1:1 NAT

- (a) **nbn** will allocate:
- (i) a private IP address to each item of RSP Equipment or End User Equipment attached to a UNI-D; and
 - (ii) an internet-accessible public IP address to each Plan for which the **nbn**[®] Upstream Network Boundary is the Internet Point of Presence.
- (b) **nbn** will link the private IP addresses allocated under section 5.3(a)(i) with the public IP address allocated under section 5.3(a)(ii) using Static NAT.
- (c) **nbn** may change public IP address allocated under section 5.3(b) at its discretion:
- (i) from time to time; or
 - (ii) without limiting section 5.3(c)(i), upon request by RSP.

5.4 Allocation of IP Address Scheme

- (a) Subject to sections 5.4(b) to 5.4(d), Public Dynamic NAT overload will apply as the default IP Address Scheme in respect of all Ordered Products on and from 1 April 2021.
- (b) RSP may request **nbn** to support Public 1:1 NAT as the IP Address Scheme in respect of an Ordered Product.

Note: If Public 1:1 NAT is applied in response to a request under this section, recurring Charges apply in accordance with the [nbn[®] Sky Muster[®] Plus Price List](#) from the date of completion of the request.

- (c) Where the IP Address Scheme for an Ordered Product is Public 1:1 NAT, RSP may request **nbn** to support Public Dynamic NAT overload as the IP Address Scheme for that Ordered Product.

Note: If Public Dynamic NAT overload is applied in response to a request under this section, any recurring Charges applicable to Public 1:1 NAT under the [nbn[®] Sky Muster[®] Plus Price List](#) will cease to apply from the date of completion of the request.

- (d) Despite section 5.4(a), the IP Address Scheme for an Ordered Product on or after 1 December 2023 will be Public 1:1 NAT without requiring any request from RSP under section 5.4(b) if:
- (i) any one of the following applies:
 - (A) immediately prior to 1 December 2023, **nbn** has supported Public 1:1 NAT as the IP Address Scheme for that Ordered Product, including where the Ordered Product is subject to a Transfer Reversal placed by RSP; or

- (B) at any time on or after 1 December 2023, **nbn** commences supplying that Ordered Product to RSP as a result of a Service Transfer, provided that **nbn** had been supporting Public 1:1 NAT as the IP Address Scheme for the precursor ordered product immediately prior to 1 December 2023; and
- (ii) in either circumstance, a request was not made on or after 1 December 2023 for **nbn** to support Public Dynamic NAT overload as the IP Address Scheme for that Ordered Product or for a precursor ordered product (supplied prior to a Service Transfer).

Note: Certain **nbn**® Sky Muster® Plus ordered products may have Public 1:1 NAT prior to 1 December 2023, for example, if they were provisioned on or around the SMP Launch Date and were rolled back to Public 1:1 NAT due to service supply issues when Public Dynamic NAT overload was first introduced.

Part D: Optional Product Features

Sections 6 to 8 describe the optional Product Features available for **nbn**[®] Sky Muster[®] Plus.

6. Plan Test Service

- (a) The Plan Test Service is an Ordered Product that allows RSP to conduct testing of Plans.
- (b) **nbn**'s supply of the Plan Test Service comprises:
 - (i) a Plan and an associated UNI-D; and
 - (ii) the Installation of Connecting Equipment, if not already installed.
- (c) RSP may order:
 - (i) up to a maximum of two Plan Test Services in total; but
 - (ii) in respect of any given Beam, a maximum of one Plan Test Service.
- (d) **nbn** will only supply the Plan Test Service if:
 - (i) the RSP has successfully onboarded, or is in the process of onboarding, for **nbn**[®] Sky Muster[®] Plus; and
 - (ii) **nbn** determines, acting reasonably, that the RSP requires the Plan Test Service to successfully supply **nbn**[®] Sky Muster[®] Plus to its End Users.
- (e) **nbn** may, at its discretion:
 - (i) supply a Plan Test Service to a Premises which would not otherwise be eligible for a Plan under the standard processes determined by **nbn** from time to time; and
 - (ii) require RSP to select an alternative location if RSP requests the supply of a Plan Test Service at a location:
 - (A) at which it would be difficult for **nbn** to Install the Connecting Equipment or expensive to do so;
 - (B) which is served by a Beam which **nbn** determines is, or is likely to become, subject to capacity constraints; or
 - (C) which would require **nbn** to supply more than one Plan Test Service to RSP using a given Beam.
- (f) **nbn** will not conduct, or assist RSP to conduct, any testing in connection with the Plan Test Service except to the extent of supplying the Plan Test Service and Installing the Connecting Equipment for the Plan Test Service under this section 6.

7. Data Block

- (a) Subject to section 7(d), a Data Block is an optional Product Feature that increases both the Peak Period Metered Data Allowance and, if a Plan specifies an Off-peak Period Metered Data Allowance, the Off-peak Period Metered Data Allowance of that Plan by 5 GB each.

Example: If RSP acquires a 25GB+ Plan plus two Data Blocks, the Peak Period Metered Data Allowance for that Plan will be 35 GB.

- (b) The increase to the Peak Period Metered Data Allowance and any Off-peak Period Metered Data Allowance of a Plan from a Data Block, as described in section 7(a), will apply:
 - (i) at the time a Plan is initially ordered, if the Data Block is ordered at the same time; and
 - (ii) from the start of the first calendar month which begins at least 1 Business Day after the order of the Data Block, if the Data Block is ordered after the Plan is initially ordered.
- (c) RSP must not order, and **nbn** may decline to supply, a Data Block in respect of a Plan if that Data Block would have the effect that the Peak Period Metered Data Allowance or any Off-peak Period Metered Data Allowance of that Plan, as adjusted by the Data Block, would exceed 150 GB.
- (d) Data Blocks are not available for the 24x7 Uncapped Data Usage – 25 Plan, 24x7 Uncapped Data Usage – 50 Plan or 24x7 Uncapped Data Usage – 100 Plan.

8. Top-Up

- (a) Subject to section 8(h), a Top-Up is an optional Product Feature that enables a Plan to transfer a specified amount of Metered Data at the applicable Access Rate for use after the relevant Plan has exceeded its Peak Period Metered Data Allowance or Off-peak Period Metered Data Allowance (if specified in a Plan), as set out in this section 8.
- (b) Top-Ups are available in increments that include both 1 GB of Peak Period Top-Up Allowance and, if a Plan specifies an Off-peak Period Metered Data Allowance, 1 GB Off-peak Period Top-Up Allowance.
- (c) Despite section 4.1(a), if a Top-Up is supplied in respect of a Plan:
 - (i) the bandwidth profile for that Plan for Metered Data usage during Peak Periods will be the Access Rate from the time the Top-Up is supplied until the Peak Period Top-Up Allowance is exhausted; and
 - (ii) if that Plan specifies an Off-peak Period Metered Data Allowance, the bandwidth profile for that Plan for Metered Data usage during Off-peak Periods will be the Access Rate from the time the Top-Up is supplied until the Off-peak Period Top-Up Allowance is exhausted.
- (d) If a Top-Up is supplied in respect of a Plan during a calendar month, Metered Data usage during Peak Periods for that Plan during that calendar month will be counted towards the Peak Period Top-Up Allowance starting from the later of the following to occur (to the extent applicable):
 - (i) the Top-Up is supplied;
 - (ii) the Plan exceeds its Peak Period Metered Data Allowance; and
 - (iii) the Plan exhausts the Peak Period Top-Up Allowance for any Top-Up previously supplied in respect of that Plan during that calendar month.
- (e) If a Top-Up is supplied in respect of a Plan that specifies an Off-peak Period Metered Data Allowance during a calendar month, Metered Data usage during Off-peak Periods for that Plan during that calendar month will be counted towards the Off-peak Period Top-Up Allowance starting from the later of the following to occur (to the extent applicable):
 - (i) the Top-Up is supplied;

- (ii) the Plan exceeds its Off-peak Period Metered Data Allowance; and
 - (iii) the Plan exhausts the Off-peak Period Top-Up Allowance for any Top-Up previously supplied in respect of that Plan during that calendar month.
- (f) Each Top-Up, including any unused Peak Period Top-Up Allowance and any unused Off-Peak Period Top-Up Allowance, will expire at the end of the calendar month in which it is supplied.
- (g) RSP must not order, and **nbn** may decline to supply, a Top-Up in respect of a Plan if that Top-Up would have the effect that:
 - (i) the aggregate of the Peak Period Metered Data Allowance for that Plan plus any Peak Period Top-Up Allowance supplied in respect of that Plan in that calendar month would exceed 160 GB; or
 - (ii) the aggregate of any Off-peak Period Metered Data Allowance for that Plan plus any Off-peak Period Top-Up Allowance supplied in respect of that Plan in that calendar month would exceed 160 GB.
- (h) Top-Ups are not available for the 24x7 Uncapped Data Usage – 25 Plan, 24x7 Uncapped Data Usage – 50 Plan or 24x7 Uncapped Data Usage – 100 Plan.

Part E: General conditions of supply

*Section 9 sets out RSP obligations in relation to the downstream supply of services to which **nbn**[®] Sky Muster[®] Plus is an input.*

9. Downstream supply

9.1 Priority Assistance and CSG Services

RSP must not use **nbn**[®] Sky Muster[®] Plus as an input into the supply of:

- (a) a Downstream Priority Assistance Service; or
- (b) a Downstream CSG Service.

9.2 End User Equipment and installation activities

- (a) RSP is responsible for supplying and installing all End User Equipment required for the supply of **nbn**[®] Sky Muster[®] Plus.

*Section 10 sets out some general obligations of **nbn** and RSP that apply in relation to the end-to-end supply of **nbn**[®] Sky Muster[®] Plus.*

10. **nbn**[®] Sky Muster[®] Plus exclusions and RSP responsibilities

- (a) RSP is responsible for ordering appropriate Plans for each **nbn**[®] Sky Muster[®] Plus Product to meet its own requirements in respect of the supply of RSP Products to its Downstream Service Providers and Contracted End Users.
- (b) **nbn**[®] Sky Muster[®] Plus does not include:
 - (i) facilities access;
 - (ii) any interconnection with the SMP Network at the **nbn**[®] Upstream Network Boundary;
 - (iii) RSP Equipment or End User Equipment (including cabling from the NTD to RSP or End User Equipment);
 - (iv) any content or applications;
 - (v) any other end user equipment, such as modems, personal computers, network attached storage solutions, central splitters, in-line splitters and any equipment necessary to receive or interact with multicast data;
 - (vi) any network fault or performance monitoring probe or device supplied by **nbn** in relation to the SMP Network;
 - (vii) any equipment (including Lines) upstream of the **nbn**[®] Upstream Network Boundary, excluding any **nbn**[®] Equipment; or
 - (viii) any form of internet filtering.

*Section 11 describes the structure of the SMP Network and the boundaries of **nbn**[®] Sky Muster[®] Plus.*

11. SMP Network architecture and **nbn**[®] Sky Muster[®] Plus boundaries

11.1 SMP Network architecture

In the SMP Network, each Premises at which **nbn**[®] Sky Muster[®] Plus is available is located within a Beam.

11.2 **nbn**[®] Sky Muster[®] Plus boundaries

nbn[®] Sky Muster[®] Plus carries traffic in respect of a Premises over the SMP Network between the following boundaries:

- (a) the UNI used to serve that Premises; and
- (b) the **nbn**[®] Upstream Network Boundary.

11.3 Power Outages

nbn may not be able to supply **nbn**[®] Sky Muster[®] Plus in the event of a Power Outage affecting:

- (a) an NTD or any other **nbn**[®] Equipment located at a Premises served by the SMP Network; or
- (b) any other active equipment that forms part of the SMP Network.

*Section 12 describes factors relevant to the speeds, performance and availability of **nbn**[®] Sky Muster[®] Plus.*

12. Speeds, performance and availability

12.1 Speeds and performance of Ordered Products

- (a) References to download and upload speeds in this **nbn**[®] Sky Muster[®] Plus Product Description are to Layer 3 speeds and are references to the maximum data throughput that the SMP Network is designed to make available to RSP at the UNI in respect of the relevant Premises, not the minimum data throughput.
- (b) The speeds and performance (including stability) of Ordered Products actually experienced by RSP, Downstream Service Providers, Contracted End Users and other End Users will vary and depend upon a number of factors including:
 - (i) the equipment used by RSP, Downstream Service Providers, Contracted End Users and other End Users (which can also affect the speeds experienced at the UNIs for a relevant Premises in respect of Products supplied to End Users and end users of Other RSPs);
 - (ii) the nature and quality of the RSP Product or Downstream Product acquired by Downstream Service Providers and Contracted End Users;
 - (iii) the number of simultaneous End Users being served by the **nbn**[®] Network;
 - (iv) interference caused by the equipment or network of any third party;
 - (v) the nature, quality and length of the connection to, and signal reception (including any interference with in building cabling, line-of-sight interference, weather,

wireless signals, Satellite Limitations or prevailing radio conditions) at or affecting, the relevant Premises.

12.2 Line Rate

RSP must consider, and acknowledges, that:

- (a) if a UNI-D negotiates with any attached device downstream of the UNI-D to operate over a Line Rate that is insufficient to deliver an applicable bandwidth profile, traffic loss may occur at the UNI-D;
- (b) **nbn**'s ability to deliver bandwidth profiles included in Plans selected by RSP will be affected by actual Line Rates achieved in operation; and
- (c) whether or not a particular Plan is capable of achieving any potential maximum Information Rate stated for a Plan's Supplementary Burst will vary and depend on a number of factors, including the maximum aggregate throughput of the NTD using which that Ordered Product is supplied, as set out in section 12.3(b).

12.3 NTD throughput limits

- (a) If the aggregate PIR bandwidth profiles of ordered products, including both **nbn**[®] Ethernet (Satellite) ordered products and **nbn**[®] Sky Muster[®] Plus ordered products, supplied to the same NTD exceed the NTD maximum aggregate throughput set out below (in section 12.3(b)), the ordered products supplied to that NTD may not achieve maximum peak data throughput simultaneously.
- (b) The maximum aggregate throughput for an NTD in respect of all UNIs on an NTD are:

Downstream (Mbps)	Upstream (Mbps)
120	20

- (c) RSP must ensure that End Users are aware of the potential for the maximum aggregate throughput of NTDs to affect the ability of multiple Ordered Products supplied using the same NTD to achieve maximum peak data throughput simultaneously.

Note: The maximum aggregate NTD throughputs set out in this section 12.3 apply in respect of all ordered products supplied by **nbn** to RSP and all Other RSPs. Limitations apply to the number of **nbn**[®] Sky Muster[®] Plus ordered products which **nbn** makes available in respect of a Premises as set out in sections 2, 12.4 and 12.5.

12.4 Availability of supply of Product

Notwithstanding anything else in this **nbn**[®] Sky Muster[®] Plus Product Description, the supply of **nbn**[®] Sky Muster[®] Plus by **nbn** to RSP is subject to the availability of each of the **nbn**[®] Sky Muster[®] Plus Product Components, Plan Sub-features and Product Features at the time at which RSP places an order.

12.5 SMP Network capacity management

In respect of **nbn**[®] Sky Muster[®] Plus:

- (a) except as otherwise notified by **nbn** in accordance with standard processes determined by **nbn** from time to time, RSP must not place, and **nbn** may decline, an **nbn**[®] Sky Muster[®] Plus order in respect of a Premises if the supply of the ordered Plan would result in:
 - (i) **nbn** supplying to all **nbn** retail service providers in respect of that Premises either:
 - (A) more than four Plans; or

- (B) a Plan in addition to any **nbn**[®] Ethernet ordered product; or
 - (ii) the Premises having more than one NTD.
- (b) RSP must suspend or terminate any RSP Product that RSP becomes aware is being used by a Downstream Service Provider or End User in connection with the bonding of two or more UNIs (even if **nbn** is only supplying one of the UNIs to RSP and the other UNI(s) to an Other RSP);
- (c) **nbn** may decline an order or modification (as applicable) which would require additional Beam capacity to be supplied during any period in which a Beam is at or near maximum capacity; and
- (d) **nbn** may deprioritise data transfers or reduce the maximum data transfer rate of any Plan contributing disproportionately to Beam capacity utilisation.