National Ethernet section

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Certain words are used with the specific meanings set out on page 10 and in the General Terms of Our Customer Terms ("General Terms").

1 About this section

Our Customer Terms

- 1.1 This is the National Ethernet section of Our Customer Terms.
- 1.2 The General Terms also apply unless you have a separate agreement with us which excludes the General Terms. This section applies to the extent of any inconsistency with the General Terms.
- 1.3 The <u>Services on the **nbn**TM section</u> and <u>**nbn**TM Access Service section</u> of Our Customer Terms also apply to any **nbn**TM Access Services which form part of your National Ethernet service.
- 1.4 The National Ethernet Data Sheet is for your information only and does not form part of the contract terms on which we provide the National Service unless we state otherwise in this section of Our Customer Terms.

No assignment or resupply

1.5 National Ethernet isn't available to Telstra wholesale customers. You mustn't assign or resupply National Ethernet to anyone.

2 National Ethernet

What is National Ethernet?

2.1 National Ethernet is an Ethernet over fibre data networking service for connecting two or more sites in available locations in Australia. It offers high speed data connectivity and scalable bandwidth and redundancy options.

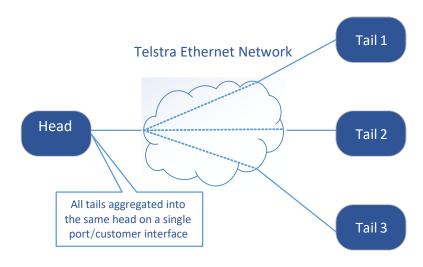
What are the Point-to-Point and Point to Multi-Point topologies?

- 2.2 National Ethernet has two available topologies: Point-to-Point (**P2P**) or Point to Multi-Point (**P2MP**).
- 2.3 A P2P service connects and transmits data between two sites, often like this:



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A P2MP service connects and transmits data between multiple tail sites that aggregate into one head end, often like this:



What Access Service options are available?

2.5 National Ethernet has the following **Access Service** options for connecting your site to the Telstra Ethernet network:

Access type	Resiliency type	Description
Telstra fibre	Single access	A single Telstra fibre connection from the nearest point of presence into our network will terminate in a single NTU at the customer site.
Telstra fibre	Fully redundant	At least 2 Telstra fibre connections delivered on diverse paths from different points of presence into our network will terminate into two separate NTUs at the customer site. The back-up should only be used if the primary fails. Otherwise your service availability may be reduced.
Ethernet over nbn TM	Single access	A single nbn TM Traffic Class 2 Access Service will terminate in a single NTU at the customer site. This Access Service is further described in the nbn TM Access Service section of Our Customer Terms. The nbn access type is only available for P2MP tail sites.

2.6 The National Ethernet Data Sheet sets out which Access Service combinations are compatible with the P2P and P2MP topologies, which we may update from time to time.



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What bandwidth and port options are available?

- 2.7 Your subscribed access bandwidth is the rate at which we police your National Ethernet service. The National Ethernet Data Sheet sets out the available bandwidth options, which we may update from time to time.
- 2.8 A port (customer interface) is a dedicated digital transmission interface used as part of National Ethernet. The National Ethernet Data Sheet sets out the available port types, which we may update from time to time.
- 2.9 The maximum rate carried on a port depends on the physical line rate of the interface and your subscribed access bandwidth. Actual throughput is lower than the chosen access bandwidth. This is because the transmission protocol uses some of the access bandwidth to manage the data transmission.
- 2.10 For National Ethernet services, the access bandwidth is fixed full duplex. This means it is a symmetrical service so that you can send and receive data at the same rate.
- 2.11 The factors affecting the speed of the Ethernet over **nbn**TM Access Service are further described in the **nbn**TM Access Services section of Our Customer Terms.

3 Connecting a National Ethernet service

Availability

3.1 The National Ethernet service or options in the service (such as bandwidths, Classes of Service or other functionality) may not be feasible or available for your site. When you apply for a service, feature, option, change or work related to your service, we may determine at that time whether your request is feasible for your site and available for order.

How long does it usually take to deliver the service?

3.2 We aim to meet the target standard provisioning times below for connecting or changing your National Ethernet service where the Access Service is Telstra fibre. These times start on the date we have received from you a signed application form with all the required information and ends once your National Ethernet service is provisioned:

	Telstra fibre orders: Category of order (as we determine)	Target standard provisioning time
1.	Basic order : Orders that don't need any external work before installation and that are in metropolitan areas. Basic orders could include minor internal work at your site or our exchange, which can be done at the same time as the site visit.	9 Business Days
2.	Minimal order : Orders that need minimal work prior to installation, such as external transmission plant installation work (including installing up to 500m of cable), substantial internal plant work, or substantial fee for service work.	19 Business Days
3.	Medium order : Orders that need medium work before installation, including seeking third party consent before work can begin.	24 Business Days
4.	Extensive order: Orders that need major construction activity.	Assessed case by case
5.	Bandwidth change: Provision a bandwidth upgrade or downgrade on existing National Ethernet service if no network construction work is required	4 Business Days



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What is standard connection?

3.3 The standard connection charge includes delivery of the service to the **Service Demarcation Point** set out in the below table.

Site Type	Service Demarcation Point	NTU inside customer rack
Data Centre	UNI handoff at the meet-me room	NO
Multi-tenanted building	UNI handoff at the common area (Main Distribution Frame)	NO
Single-tenanted site	UNI handoff with NTU installed at customer site	YES

UNI – User Network Interface (also known as Customer Interface)

- 3.4 Additional charges (confirmed on request) apply for any work to connect your service which goes beyond the Service Demarcation Point, including the following:
 - (a) extend our network if your Property Entry Point is over 500 metres from the nearest part of the existing network that is used to connect your National Ethernet service;
 - (b) installing or upgrading cable (lead-in) from the Property Entry Point to the Building Entry Point;
 - (c) providing and installing cabling to your site or equipment beyond the Service Demarcation Point;
 - (d) diverse access links, alternate or diverse cable entry point to building, additional service commissioning tests; and
 - (e) any other work specifically requested on your site.

We work during Business Hours

3.5 Unless otherwise stated, we do work as part of National Ethernet (including installation, configuration, site audits and feasibility studies) during Business Hours. Additional charges apply if you ask us to do work outside Business Hours and we agree to do so. We can confirm these charges on request.

4 National Ethernet equipment

What equipment do we provide?

- 4.1 We install equipment such as our NTU at your site as part of National Ethernet. Title in the equipment remains with us at all times.
- 4.2 In relation to our equipment, you must at all times, take proper care of it and ensure:
 - (a) it's not damaged, destroyed, lost or stolen, or modified (except by us); and



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- (b) its operating environment is maintained as we require from time to time, including in relation to operating voltage, humidity and temperature.
- 4.3 If a National Ethernet service expires or is terminated, we may at our choice, collect our equipment. If we do this, you must ensure that we have prompt access to any site for this collection. If the termination is for any reason other than our material breach, you must promptly pay us our reasonable costs that we incur in connection with collecting our equipment.
- 4.4 You must ensure that we or our representatives are the only ones that carry out connections and disconnections to your National Ethernet service and our equipment.

What equipment and cabling are you responsible for?

- 4.5 To apply for and continue to use National Ethernet, you must at all times and at your cost provide and maintain:
 - (a) equipment that you use with or connect to the National Ethernet service;
 - (b) patch cables, attenuators or other devices connecting your equipment to our equipment; and
 - (c) cabling to connect the National Ethernet service from our Service Demarcation Point to your site and equipment, which must be installed by us or a registered cabling service provider.
- 4.6 For all equipment and cabling that you are responsible to provide and maintain, you must ensure that they meet the applicable ACMA requirements, and any other requirements that we specify from time to time.
- 4.7 To allow us to set up your National Ethernet service correctly, you must give us accurate configurations for your equipment and floor plans showing power distribution and agreed equipment placement.
- 4.8 If you fail to meet any of your obligations under this section 4:
 - (a) we get an extension of time which reasonably reflects the effects of your failure; and
 - (b) you must promptly pay us any reasonable costs or expenses we incur and that arise naturally (that is, according to the usual course of things) from the failure, including costs associated with down time and re-scheduling of resources (calculated on our then current time and material rates), and costs to replace, repair or modify your Service, our equipment or other property, except to the extent the failure is caused or contributed to by us. We must also take reasonable steps to mitigate the costs and expenses incurred in connection with the failure.

5 What are the charges for National Ethernet?

5.1 Your National Ethernet charges are set out in your separate agreement with us.



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5.2 We may determine and will advise you of the applicable service zone when you apply for a new service or to relocate an existing service.

6 Minimum term and termination

What is National Ethernet's minimum term?

You must take each National Ethernet service for at least 12 months or such other period set out in your separate agreement with us ("**minimum term**").

What happens if your National Ethernet service is terminated?

- 6.2 If you terminate a National Ethernet service before it's provisioned, you must pay us all reasonable costs we reasonably incur in provisioning that service. We can confirm these costs on request.
- 6.3 An early termination fee also applies if:
 - (a) you terminate a National Ethernet service before the end of its applicable minimum term, except where the termination is due to our material breach; or
 - (b) we terminate a National Ethernet service before the end of its applicable minimum term due to your material breach.
- 6.4 Unless otherwise set out in your agreement with us, the early termination fee for a National Ethernet service purchased or recontracted on or after 11 December 2019 is 45% of $A \times B$ where:

A is the average charges paid or payable each month for the terminated National Ethernet service and any other service or feature under this section, up to the date of termination.

B is the number of months (or part of a month) from the date of termination until the end of the applicable minimum term.

6.5 Unless otherwise set out in your agreement with us, the early termination fee for a National Ethernet service purchased or recontracted before 11 December 2019 is 25% of $A \times B$ where:

A is the average charges paid or payable each month for the terminated National Ethernet service and any other service or feature under this section, up to the date of termination.

B is the number of months (or part of a month) from the date of termination until the end of the applicable minimum term.

You acknowledge that the above early termination charges are a genuine pre-estimate of our loss.



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7 Service Assurance

What is National Ethernet's availability target?

7.1 We aim to meet the following availability targets for National Ethernet, measured over a 12 month period:

Point to Point							
A-end Access Service	B-end Access Service	Service availability target					
Telstra Fibre Single Access	Telstra Fibre Single Access	99.93%					
Telstra Fibre Fully Redundant	Telstra Fibre Fully Redundant	99.999%					
Point to Multi-Point							
Head-end	Tail-end	Service availability target					
Telstra Fibre Single Access	Telstra Fibre Single Access	99.93%					
Telstra Fibre Single Access	Ethernet over nbn TM Single Access	99.83%					
Telstra Fibre Fully Redundant	Telstra Fibre Single Access	99.96%					
Telstra Fibre Fully Redundant	Telstra Fibre Fully Redundant	99.999%					
Telstra Fibre Fully Redundant	Ethernet over nbn TM Single Access	99.89%					

Classes of Service

- 7.2 National Ethernet includes Classes of Service which we use to prioritise layer 2 traffic across our Telstra Ethernet core network.
- 7.3 The Premium Class of Service is the default Class of Service included for all National Ethernet services. The Prioritise and Expedite Classes of Service are value-add options at additional cost available for Telstra fibre Access Services only.
- 7.4 We aim to meet the targets in the following table for the National Ethernet Classes of Service where:
 - (a) The latency target refers to the average one-way delay for a service frame to travel from the UNI ingress to the UNI egress within an Ethernet Virtual Circuit in that Class of Service, as measured by us;
 - (b) The jitter target refers to the average variation in delay between consecutive service frames within an Ethernet Virtual Circuit in that Class of Service, as measured by us; and
 - (c) The frame loss target refers to the average percentage of frames lost in a roundtrip between two UNIs for a given Ethernet Virtual Circuit in that Class of Service, as measured by us.

Class of Service	Latency target (milliseconds)			atency target (milliseconds) Jitter target (milliseconds)			Frame Loss target		
distance between sites	0 – 161Km	162 – 1609Km	1610 - 16093Km	0 – 161Km	162 – 1609Km	1610 - 16093Km	0 – 161Km	162 – 1609Km	1610 - 16093K m



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Premium							
Prioritise	<10ms	<20ms	<42.4ms	<2ms	<2ms	<10ms	<0.01%
Expedite	<5.68ms	<14.51ms	<37.5ms	<1ms	<1ms	<1ms	

Fault reporting and repair

- 7.5 The standard service assurance service level for National Ethernet is Business Plus and this is included in your monthly access charges. There are enhanced SLA Premium service assurance options at additional cost. The coverage period, response time target, restoration time target, any rebates and other terms for these service levels are described in the Standard Restoration, SLA Premium and Telstra Provisioning Commitment section of Our Customer Terms.
- 7.6 Our service assurance covers maintenance up to our Service Demarcation Point and of the NTU. It does not include maintenance of any equipment you own or use or any cabling on your side of the Service Demarcation Point, even if we had installed it as additional fee for service work.
- 7.7 We prioritise repairing major faults that affect several customers. If a major fault occurs, we may not meet our targets to you for repairing National Ethernet.
- 7.8 Subject to the Australian Consumer Law provisions in the General Terms of Our Customer Terms, we're not responsible for failing to meet our obligations in relation to National Ethernet for incidents or faults caused or contributed to by the following ("Third Party Faults"):
 - (a) you or a third party (including incidents caused by your failure or a third party's failure to maintain appropriate power, temperature or other environmental conditions in respect of any equipment used to support National Ethernet);
 - (b) the cutting of cable or fibre which affects your National Ethernet service;
 - (c) equipment (including cabling) we didn't supply as part of National Ethernet; or
 - (d) you not giving us sufficient and timely access to your premises and equipment so that we can carry out investigations or repairs,
 - except to the extent our (or our contractors') negligence or breach of Our Customer Terms caused or contributed to the Third Party Fault.
- 7.9 If we do any work in connection with Third Party Faults, you must pay us additional charges, which we can confirm on request.
- 7.10 Additional charges apply for installation, maintenance, consultancy and after sales activities not covered by a standard charge or contract. We can confirm these additional charges on request.



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8 Special meanings

8.1 The following words have the following special meanings:

Building Entry Point is the point where cable crosses or goes through the perimeter of your building.

Business Day means Monday to Friday (excluding public holidays).

Business Hours are 8am to 5pm (AEST) on Monday to Friday (excluding public holidays).

National Ethernet Data Sheet means our data sheet for the National Ethernet service found at www.telstra.com/nationalethernet, which we may update from to time.

NTU means a Network Termination Unit and is a Telstra network device.

Property Entry Point means the point where the cable or optic fibre enters your property.

Service Demarcation Point has the meaning set out in clause 3.3.

