

1.1 General

AT&T Wavelength Metro is a fiber based, point-to-point, Ethernet service that allows Customers to transport data signals between 2 locations. AWM can be used to transport data as an Ethernet signal or embedded within an Optical Transport Network (OTN) signal. (T)
(T)

AWM is available at the following speed and format options: (T)

Speed	Ethernet Formats	Optical Transport Unit (OTU) Formats
1Gbps	1GE – Gigabit Ethernet	Not available
2.5Gbps	Not available	OTU1
10Gbps	10GE LAN-PHY	OTU2e
	10GE WAN-PHY	OTU2
40Gbps	40GE	OTU3
100Gbps	100GE	OTU4
400Gbps	400GE	Not available

1.2 Service Availability

AWM is available from this Service Guide in the following jurisdictions across the following AT&T ILEC states: (T)

Jurisdictional Offerings												
Jurisdiction	AL	AR	CA	CA OOT ⁽¹⁾	FL	GA	IL	IN	KS	KY	LA	MI
Interstate	√	√	√		√	√	√	√	√	√	√	√
State Access	√	√			√	√	√	√	√	√	√	√
State Exchange	√	√		√	√	√	√	√	√	√	√	√
Jurisdiction	MO	MS	NC	NV	OH	OK	SC	TN	TX	TX OOT	WI	
Interstate	√	√	√	√	√	√	√	√	√		√	
State Access	√	√	√		√	√		√	√		√	
State Exchange	√	√	√	√	√	√	√	√	√	√	√	

AWM provides transport service where suitable equipment and facilities are available in select geographic areas. Where facilities are not available, facilities may be constructed subject to terms as set forth in Part 1, Section 7. Special Construction charges may apply. (T)

AT&T offers AWM on a private carriage basis and reserves the right to make individualized decisions regarding the provision of AWM to individual customers. AT&T may negotiate the specific prices and terms for AWM for each individual customer. (T)
(T)
(T)

Commingling, as defined in Part 1, Section 2, of AWM is prohibited. (T)

(1) OOT – Out of Territory

1.3 Port Connection

The Port Connection is the standard rate element that includes the service interface (point of demarcation) at the Customer-designated Premises (Customer Site), any network termination equipment (NTE) placed at the Customer Site, and the physical transport facilities from the Customer Site to the AWM network at the Serving Wire Center (SWC) for that Site. (T)

AT&T charges one Port Connection Charge per Customer Site at which the Port Connection is terminated. This charge applies even if the Customer Site and the SWC are both located in the same AT&T building (e.g., where the Customer Site is a collocation arrangement⁽¹⁾, Carrier point-of-presence, etc.).

Rates and charges for the Port Connection are provided in Part 2, Section 3, paragraph 3.3.

(1) In addition to a Port Connection Charge, AT&T charges cross connect charges under the applicable guidebooks/tariffs for connecting AWM to a collocation arrangement.
[Interstate only]

(T)

AWM is available with the following Port Connection configurations:

(T)

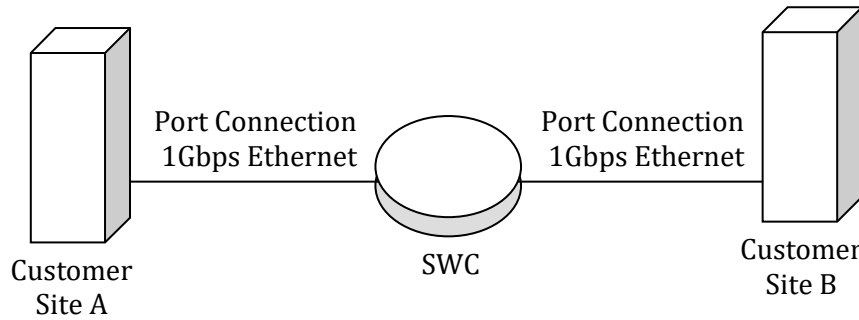
A. Same Speed / Same Format

- Ethernet to Ethernet (e.g., 1GE to 1GE, etc.); or
- OTN to OTN (e.g., OTU1 to OTU1, etc.)

(N)

(N)

Same Speed / Same Format Configuration



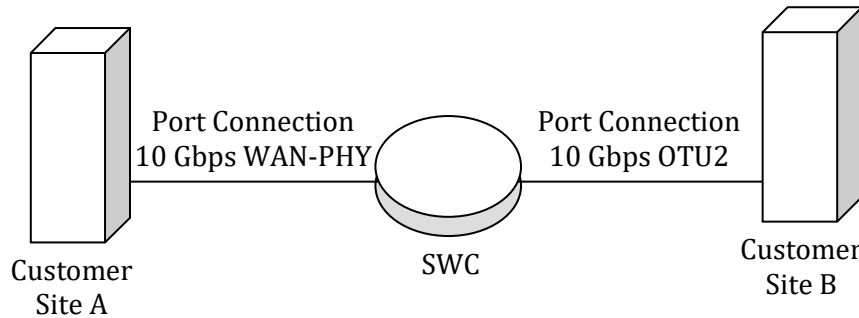
This example illustrates a 1Gbps Ethernet circuit from Customer Site A to Customer Site B for a same speed / same format arrangement. In this example, 2 – 1Gbps Ethernet Port Connection charges apply.

B. Same Speed / Different Format

- OTN to Ethernet (e.g., OTU2 to 10Gbps WAN-PHY, etc.)

(N)

Same Speed / Different Format Configuration



(T)

This example illustrates a same speed / different format circuit configuration whereby there is a 10Gbps WAN-PHY Port Connection between Customer Site A and the SWC and a 10Gbps OTU2 Port Connection between Customer Site B and the SWC. In this example, both a 10Gbps WAN-PHY and a 10Gbps OTU2 Port Connection charge apply.

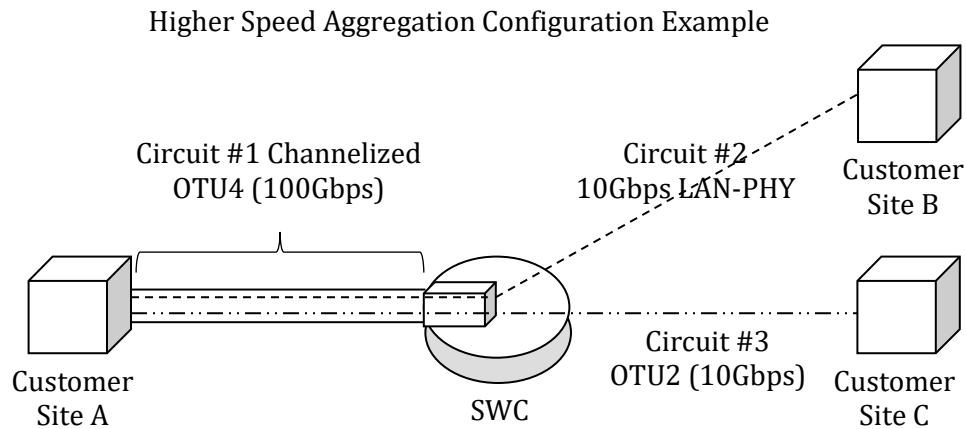
1.4 Higher Speed Aggregation

Higher Speed Aggregation permits Customer to connect a lower speed Port Connection to a channelized higher speed Port Connection.

OTU2 (10Gbps) and OTU4 (100Gbps) Port Connections may be purchased as either channelized or non-channelized. A channelized Port Connection includes a channelized circuit that terminates at a multiplexer within a SWC.

A channelized OTU2 Port Connection can connect up to 8 1GE Port Connections or 4 OTU1 Port Connections, or any other combination of such Port Connections, up to the available capacity of the channelized OTU2 Port Connection.

A channelized OTU4 Port Connection can connect to up to 10 10Gbps Port Connections in any combination of types (10GE LAN-PHY to 10GE WAN-PHY, 40GE to OTU3, OTU2e to OTU2), up to the available capacity of the channelized OTU4 Port Connection.



In the example of a higher speed aggregation arrangement depicted in the diagram above, there are 3 circuits as follows:

- *Circuit #1* = A channelized OTU4 (100Gbps) circuit from Customer Site A that terminates at a multiplexer within the SWC.

One OTU4 Port Connection monthly recurring charge (MRC) applies for Circuit #1.

- *Circuit #2* = A 10Gbps LAN-PHY circuit from Customer Site B to Customer Site A. Circuit #2 occupies a channel of the higher speed Circuit #1 from the SWC location to Customer Site A.

One 10GE LAN-PHY Port Connection MRC applies to Circuit #2 for the Port Connection at Customer Site B.

No Port Connection charge applies to the portion of Circuit #2 that occupies a channel of Circuit #1 (i.e., SWC to Customer Site A).

- *Circuit #3* = A 10Gbps OTU2 circuit from Customer Site C to Customer Site A. Circuit #3 occupies a channel of the higher speed Circuit #1 from the SWC location to Customer Site A.

One OTU2 Port Connection MRC applies to Circuit #3 for the Port Connection at Customer Site C.

No Port Connection charge applies to the portion of Circuit #3 that occupies a channel of Circuit #1 (i.e., SWC to Customer Site A).

1.5 Protection and Diversity Options

Protection and diversity options are available as follows:

Protection Options	Diversity Options
<ul style="list-style-type: none"> • Port Protection Plus 	<ul style="list-style-type: none"> • Port Diversity • Alternate Wire Center Diversity • Inter-Wire Center Diversity

Protection cannot be combined with Diversity options except in the case of the stand-alone Alternate Wire Center Diversity option.

Protection and diversity options are available where facilities and/or operating conditions permit. Where facilities and/or operating conditions do not permit, Special Construction charges may apply as set forth in Part 1, Section 7 of this Service Guide. (T)

1.5.1 Protection

Protection offers a duplicate signal path routed on 2 different fiber pairs (a working path and a standby path) to provide increased reliability.

In the event of a failure of the working path, AWM will switch to the surviving path. In the event of a failure of both fiber transmission paths, an out-of-service condition will result. (T)

Limitations:

- Protection is not available for same speed / different format circuit configurations.
- Protection is not available for higher speed aggregation configurations (i.e., protection is not available for channelized circuits and circuits connecting with a channelized circuit).
- Protection is not available for Meet Point arrangements. See paragraph 1.6 for more information on Meet Pont arrangements.

A. Port Protection Plus

Port Protection Plus is an end-to-end (fully protected) protection option that offers a duplicate signal routed over 2 diversely routed fiber paths, a working path and a standby path. Port Protection Plus also includes dual card protection at each Customer Site whereby the working path and standby paths terminate into 2 separate cards on a single shelf in the NTE at each of the Customer Sites.

The Port Protection Plus optional feature must be selected for both Customer Sites in addition to the normal Port Connection charges.

Port Protection Plus is available only for circuits that meet the following conditions:

- The circuit must be configured as a same speed / same format arrangement; and
- Neither end of the circuit can terminate at a collocation arrangement.

1.5.2 Diversity

Diversity options minimize single points of failure by creating 2 circuits, or portions of a circuit, that are diverse from one another. With these arrangements, 1 or more circuits will be provisioned over the normal path and 1 or more circuits will be provisioned over the diverse path. Customer may transport traffic over both circuits.

Customer requesting diversity will be billed for 2 circuits plus the applicable diversity charge(s) for the portions of the circuit that are physically diverse.

Diversity options do not include construction of dual-entrance facilities. If Customer requires dual-entrance facilities and they do not currently exist, Customer must make arrangements for constructing dual-entrance facilities at Customer's expense.

Limitations:

- Diversity options are not available for Meet Point arrangements. See paragraph 1.6 for more information on Meet Point arrangements.
- Port Diversity and Alternate Wire Center Diversity cannot be selected at the same Customer Site for the same Port Connection.

The following Diversity options are available:

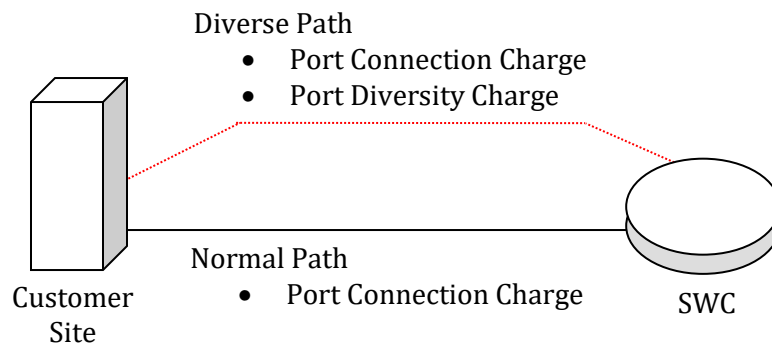
A. Port Diversity

Port Diversity provides transmission paths (a normal path and a diverse path), which are diverse from each other between 2 designated Port Connections from 1 or more Customer Sites to their SWCs.

The fiber path from each designated Port Connection to its SWC will be diverse from the other, from the closest available point of divergence (e.g., the closest manhole to the Customer Site, etc.). The same Customer must purchase these 2 designated Port Connections.

(N)

Port Diversity requires Customer to purchase duplicate Port Connections (to establish a normal path and a diverse path) from the Customer Site(s) to its SWC(s). In addition, a Port Diversity charge applies on the diverse path circuit for each pair of designated Port Connections at any Customer Site where Customer requests Port Diversity.



B. Alternate Wire Center Diversity

Alternate Wire Center Diversity provides 2 transmission paths (a normal path and a diverse path), which are diverse from each other between 2 designed Port Connections. AT&T routes the normal path to the normal SWC and the diverse path to an alternate wire center.

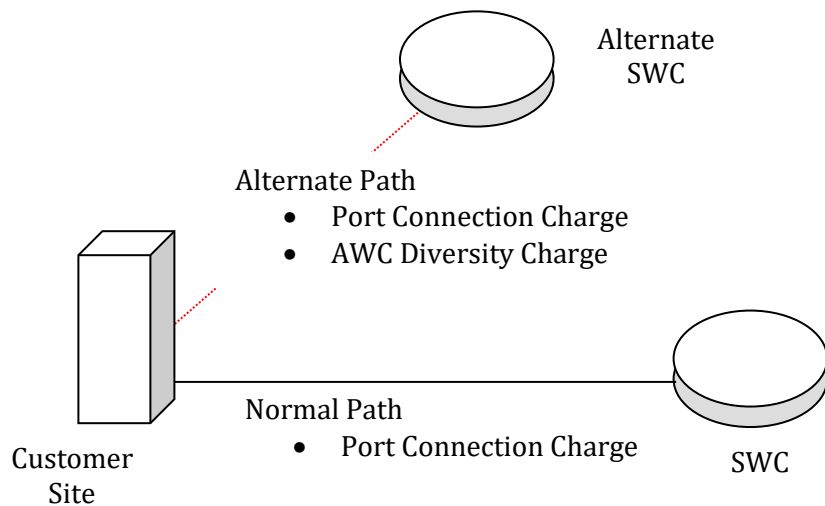
AT&T will designate the alternate wire center to which it will route the diverse path.

The fiber path from each designated Port Connection to its applicable SWC (normal and alternate) will be diverse from the other, from the closest available point of divergence (e.g., the closest manhole to the Customer Site, etc.). The same Customer must purchase these 2 designated Port Connections.

(N)

AWC Diversity requires Customer to purchase duplicate Port Connections (to establish a normal path and a diverse path) from the Customer Site(s) to the applicable SWC(s). In addition, an AWC Diversity charge applies on the diverse path circuit for each pair of designated Port Connections at any Customer Site where Customer requests AWC Diversity.

AWC Diversity Example

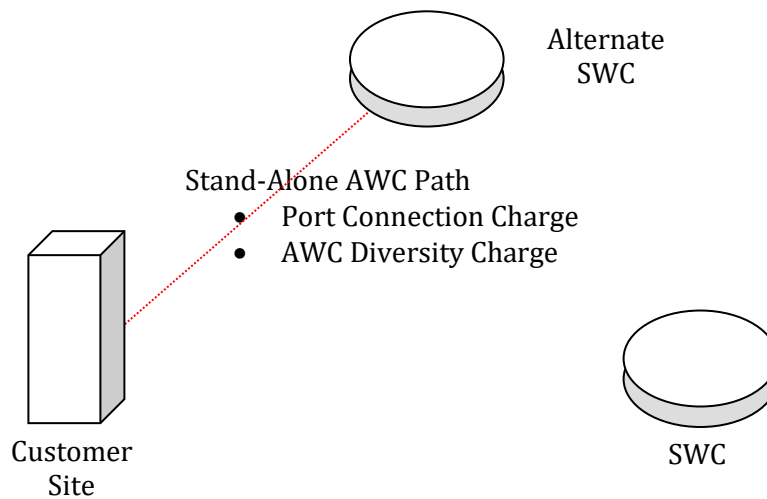


Stand-Alone Alternate Wire Center (AWC) Routing

AWC Diversity is available as a stand-alone AWC arrangement where there is no actual diversity. In this arrangement, AT&T routes a Port Connection to an AWC rather than its normal SWC.

AT&T charges Customer a Port Connection charge and an AWC Diversity charge for a stand-alone AWC route connecting the Customer Site to the alternate SWC.

Stand-Alone AWC Example



AT&T routes the Port Connection to a SWC other than its normal SWC in a Stand-Alone AWC arrangement.

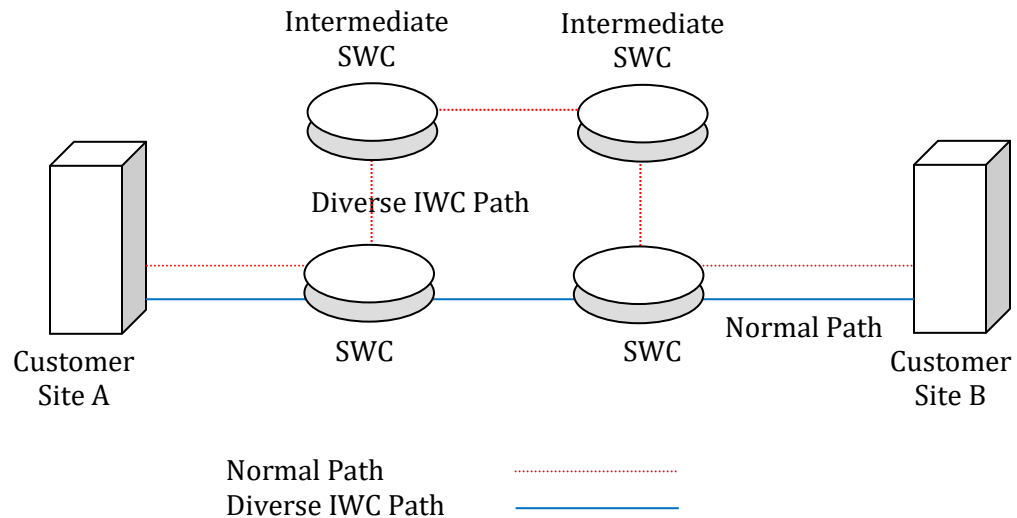
C. Inter-Wire Center (IWC) Diversity

Inter-Wire Center (IWC) Diversity provides a transmission path between the SWCs for each end of the circuit that is separate from the normal transmission path. IWC Diversity arrangements are available only where each end of a circuit is provided from a different SWC.

IWC Diversity requires Customer to purchase duplicate Port Connections. An IWC Diversity charge applies to the circuit designated with the diverse IWC path. The same Customer must purchase these 2 designated Port Connections.

The IWC Diversity option can be selected on its own or in combination with the Port Diversity and/or AWC Diversity options.

IWC Diversity Example



In the IWC Diversity example above, there are 2 circuits between Customer Site A and Customer Site B as follows:

1. Circuit #1 is the normal path circuit and consists of 2 Port Connection charges.
2. Circuit #2 has the IWC Diversity feature to provide a diverse IWC path from circuit #1. Circuit #2 consists of 2 Port Connection charges plus an IWC Diversity charge.

1.6 Meet Point Arrangements

In some cases, AT&T and another Incumbent Local Exchange Carrier (ILEC, sometimes referred to as an Independent Company or ICO) may agree to jointly provide AWM where such AWM will be provided to locations in both AT&T's and the other ILEC's serving territories. In such cases, AT&T and the other ILEC may mutually agree to meet at a location (i.e., meet point) utilizing facilities suitable for delivery of AWM. (T)

AT&T is responsible for the ordering, provisioning, billing, and maintenance of such AT&T AWM up to the meet point. (T)

The rates and charges for AWM are applicable for the AT&T-provided portion of such AWM as follows: (T)

- One Port Connection charge applies for the portion of the circuit AT&T provides;
- The Administrative Charge applies in full per order received;
- The Design and Central Office Connection Charge applies in full per circuit; and
- The Customer Connection Charge applies for the termination of the Port Connection that AT&T provides.