Service Description

Cyxtera Metro Connect

Last Updated: September 18, 2020

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Location of Data Center at which the Service is to be Provided	Affiliate or Subsidiary
United States or Any Other Country Not Listed in this Table	Cyxtera Communications, LLC
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United Kingdom	Cyxtera Technology UK Limited
Japan	Cyxtera Japan, Ltd.
Singapore	Cyxtera Singapore Pte. Ltd.
Hong Kong or China	Cyxtera Hong Kong Limited
Germany	Cyxtera Germany GmbH
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1 Introduction

As part of Cyxtera's interconnection product portfolio, Metro Connect services provide connectivity for Cyxtera customers allowing them to connect to other Cyxtera data centers as well as select non-Cyxtera data centers within a metropolitan area.

Metro Connect is available in the following options:

- **Metro Connect Dark Fiber**: This service provides Cyxtera customers access to dark fiber allowing them to connect to other locations in a metropolitan area.

- **Metro Connect Dedicated**: This service provides Cyxtera customers access to Cyxtera's fully redundant optical network between locations within a metropolitan area. Metro Connect Dedicated services are deployed over the optical network as Dense Wavelength Division Multiplexing ("DWDM") services. Metro Connect Dedicated provides a secure, encrypted solution enabling Metropolitan Area Network connectivity and can be provisioned with different levels of redundancy based on the customer need.

Due to the difference in the underlying network technology to deliver these services, interoperability between Metro Connect Dark Fiber and Metro Connect Dedicated is not supported. These products should not be ordered together to facilitate an overall Metro Connect solution.

1.1 Self-Service Tools

Metro Connect includes access to the following self-service tools:

- **Cyxtera Customer Support Portal** (the "Portal") provides management access to the Cyxtera interconnection product portfolio, including, but not limited to, subscription status, inventory viewing, management of entitlements, and customer support. See the Cyxtera Customer Guide for more information about the Portal.

1.2 Availability

Metro Connect Dark Fiber is available in the following data centers:

Metro Area	Cyxtera Data Center	Non-Cyxtera (3rd Party) Location
Silicon Valley	SFO4	1100 Space Park (Digital Realty)

Metro Connect Dedicated is available in the following data centers:

Metro Area	Cyxtera Data Centers	Non-Cyxtera (3rd Party) Locations
Washington DC	IAD1, IAD2, IAD3	
London, UK	LHR1, LHR2, LHR3	6 Greenwich View Place – Ground Floor & 1st Floor (Telstra)
New Jersey	EWR1, EWR2, EWR3	

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Chicago, IL	ORD1, ORD2	350 Cermak – 2nd Floor (Digital Realty)
Silicon Valley	SFO1, SFO2, SFO3, SFO4	
Southern California	LAX1, LAX2, LAX3	1 Wilshire – 4th Floor (Coresite)
Phoenix, AZ	PHX1, PHX2	615 N 48th St - 1st Floor (Iron Mountain)

2 Product Description

Cyxtera's Metro Connect service provides connectivity between the same customer's or two different customers' (ecosystem member) environments located in different buildings with the same metro area. Metro Connect services can be used to connect a customer's environment in a Cyxtera data center to the same customer's or a different customer's environment in another Cyxtera data center or a non-Cyxtera (3rd Party) data center, where available.

2.1 Metro Connect Dark Fiber

Metro Connect Dark Fiber is a single-mode fiber connection between a Cyxtera facility and another location within the same metropolitan area. Metro Connect Dark Fiber includes access to cabling media, connectors and patch panels (if required) to deliver the service from a Cyxtera Meet Me Room ("MMR") to the Z-end termination. In Cyxtera locations, Metro Connect Dark Fiber terminates within Cyxtera MMR and connects to available ports on both the A-end and Z-end customer's Ecosystem Connect to connect through to customer environments. For connections terminating to a non-Cyxtera location, the service is terminated to a Cyxtera panel within the non-Cyxtera location and Cyxtera will order a cross connect from the non-Cyxtera provider on behalf of the customer to complete the connection to the Z-end party.

2.1.1 Cabling Media and Connectors

Metro Connect Dark Fiber is delivered utilizing single-mode fiber with LC connectors. An Ecosystem Connect is required to be installed for the A-end prior to ordering of Metro Connect Dark Fiber. Ecosystem Connect provides connectivity between the customer's environment and the Cyxtera MMR. Any cross connects within the Cyxtera MMR needed to support Metro Connect Dark Fiber are included at no additional cost and do not require a separate order. Unless the customer selects a specific port assignment during the provisioning process, Cyxtera will deploy Metro Connect Dark Fiber to the next available port on a customer's Ecosystem Connect bundle. If no ports are available or there is no Ecosystem Connect bundle in place, the Cyxtera Implementation Specialist will contact the customer to coordinate the order of the required Ecosystem Connect service.

If the Metro Connect Dark Fiber service is connecting to another Cyxtera facility, the Z-end connection must also have an Ecosystem Connect in place with an available port. If the Z-end customer is different than the ordering party, then a Letter of Authority/Connecting Facility Assignment ("LOA/CFA") for the Z-end connection must be provided by the ordering party. The LOA/CFA must conform to the Cyxtera LOA/CFA policy.

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Customers may not access the Cyxtera MMR to complete connections. Terminations can only be performed by Cyxtera staff.

2.1.2 Termination Options

The standard termination for Metro Connect Dark Fiber is between Cyxtera MMRs or a patch panel within the interconnection area of the non-Cyxtera suite.

If applicable, Cyxtera will order, on behalf of the customer, a cross connect within the non-Cyxtera location to complete the connection between the Cyxtera dark fiber termination point and the service provider with which the customer wishes to establish connectivity. A Letter of Authority/Connecting Facility Assignment ("LOA/CFA") will be required for the Z-end connection to be used in ordering this cross connect. The LOA/CFA must conform to the Cyxtera LOA/CFA policy.

2.1.3 Diversity Options

Cyxtera does not offer diversity for Metro Connect Dark Fiber.

2.1.4 Latency Standards

Cyxtera's interconnection design standards provide connectivity utilizing the most efficient routes available. However, due to the variety of design elements that could be associated with each individual Metro Connect Dark Fiber deployment, latency may vary.

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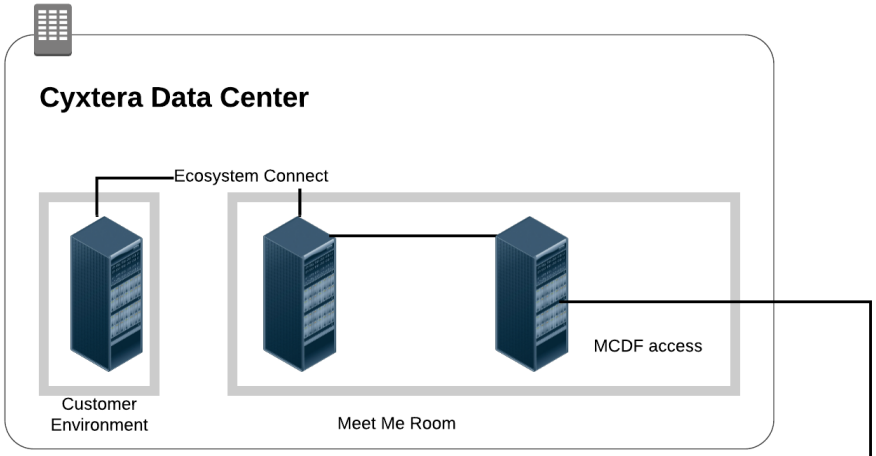
2.1.5 Service Diagram(s)



Metro Connect Dark Fiber - Cyxtera Data Center to Cyxtera Data Center

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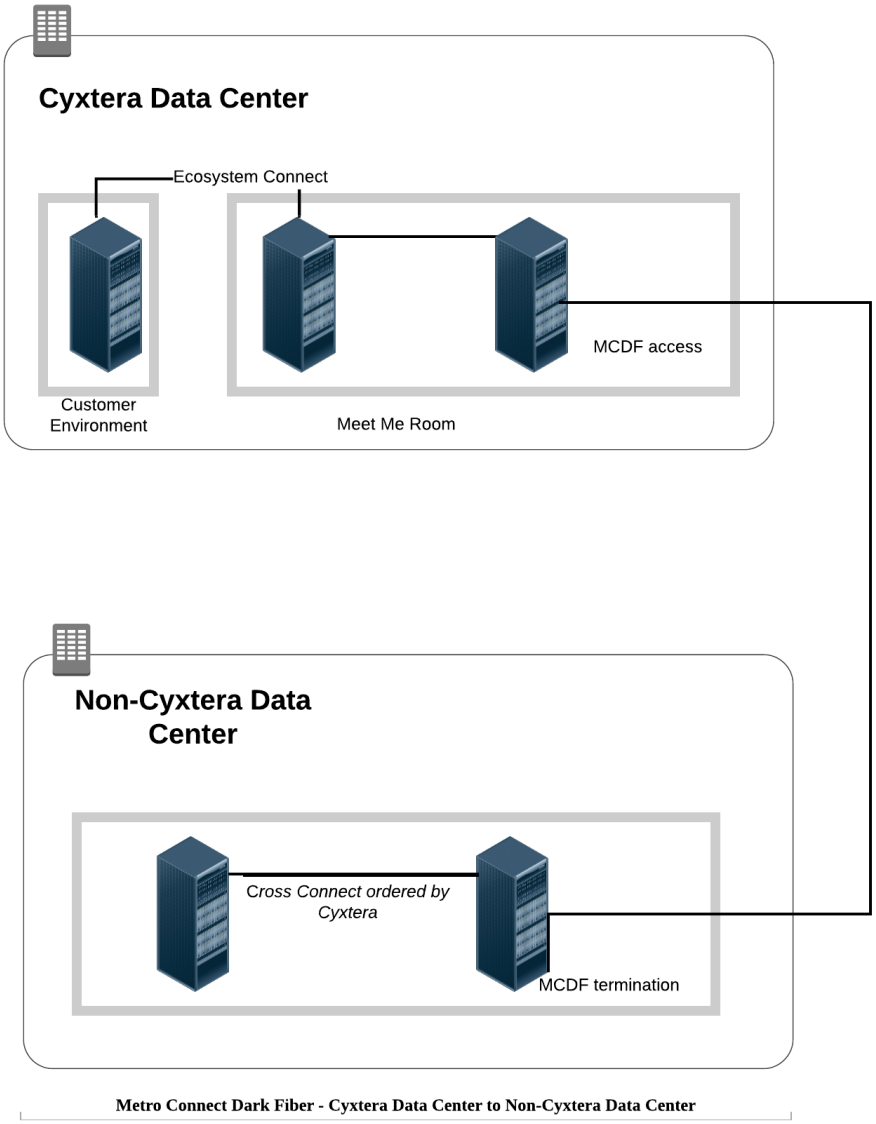

Metro Connect Dark Fiber - Cyxtera Data Center to Non-Cyxtera Data Center

2.2 Metro Connect Dedicated

Metro Connect Dedicated is a service delivered over Cyxtera's optical wavelength network delivered as a single-threaded wave utilizing Ethernet Private Line protocol. Standard delivery of Metro Connect Dedicated provides single port and single path connectivity. Customers can select redundancy options including a single port and dual path protection or dual port and dual path protection. The addition of redundancy schemes to the standard service is offered for an additional fee.

2.2.1 Service Offerings

The following table outlines the service options associated with Metro Connect Dedicated:

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Metro Connect Service	Available Speeds	Handoff type	Failover
Metro Connect Dedicated – single port/single path	10Gbps 100Gbps	Ethernet Private Line	None
Metro Connect Dedicated – single port/dual path	10Gbps 100Gbps	Ethernet Private Line	Cyxtera managed
Metro Connect Dedicated – dual path/dual port	10Gbps 100Gbps	Ethernet Private Line	Customer managed

The customer is able to order multiple instances of these service offerings, however Cyxtera views each order as a stand-alone instance and bandwidth cannot be aggregated or divided between orders. All dual path options are built as a primary and secondary (active/passive) deployment.

Please note that the port speed of a customer's service must match the port speed of the associated Metro Connect Dedicated service. Only 10G and 100G Metro Connect Dedicated is offered at this time – lower speeds are not supported.

2.2.2 Metro Connect Dedicated between Cyxtera Data Centers

In order for customers to connect between Cyxtera Data Centers via the Metro Connect Dedicated service, an Ecosystem Connect must be in place with available ports on either end of the connection terminating within a Cyxtera data center. Customers must provide a valid Letter of Authority/Connecting Facility Assignment (LOA/CFA) for all Z-end connections in a Cyxtera data center unless the Z-end connection is to themselves. The LOA/CFA must conform to the Cyxtera LOA/CFA policy. For customers connecting between their own environments, the customer should indicate both the A and Z-end connections during the sales process. The Metro Connect Dedicated service includes the applicable cross connects from Ecosystem Connect to the Metro Connect network.

Metro Connect Dedicated utilizes single mode fiber with LC connectors for handoff between the Metro Connect network and the customer's Ecosystem Connect panel.

2.2.3 Metro Connect Dedicated between Cyxtera Data Center and non-Cyxtera Data Center

In order for customers to connect to a non-Cyxtera (3rd Party Data Center) via Metro Connect Dedicated service, an Ecosystem Connect must be in place with available ports on the A-end of the connection terminating within a Cyxtera data center. Customers must provide a valid Letter of Authority/Connecting Facility Assignment (LOA/CFA) for all Z-end connections within a non-Cyxtera location, including connections between themselves. The LOA/CFA must conform to the Cyxtera LOA/CFA policy. The Metro Connect Dedicated service includes the applicable cross connects from Ecosystem Connect to the Metro Connect network, including, any applicable cross connects or riser connects in the non-Cyxtera location.

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Metro Connect Dedicated utilizes single mode fiber with LC connectors for handoff between the Metro Connect network and the customer's Ecosystem Connect panel.

2.2.4 Diversity Options

Diversity options for Metro Connect Dedicated are as follows:

- **Metro Connect Dedicated – single port and dual path**: Cyxtera will design the connection over two separate paths and failover will be implemented via an Automatic Protection Switch ("APS") in the event of a service disruption on either one of the paths.

- **Metro Connect Dedicated – dual port and dual path:** Cyxtera implements two separate Metro Connect Dedicated single threaded instances using separate port and paths. The customer would be responsible to manage the failover in the event of a service disruption on either instance.

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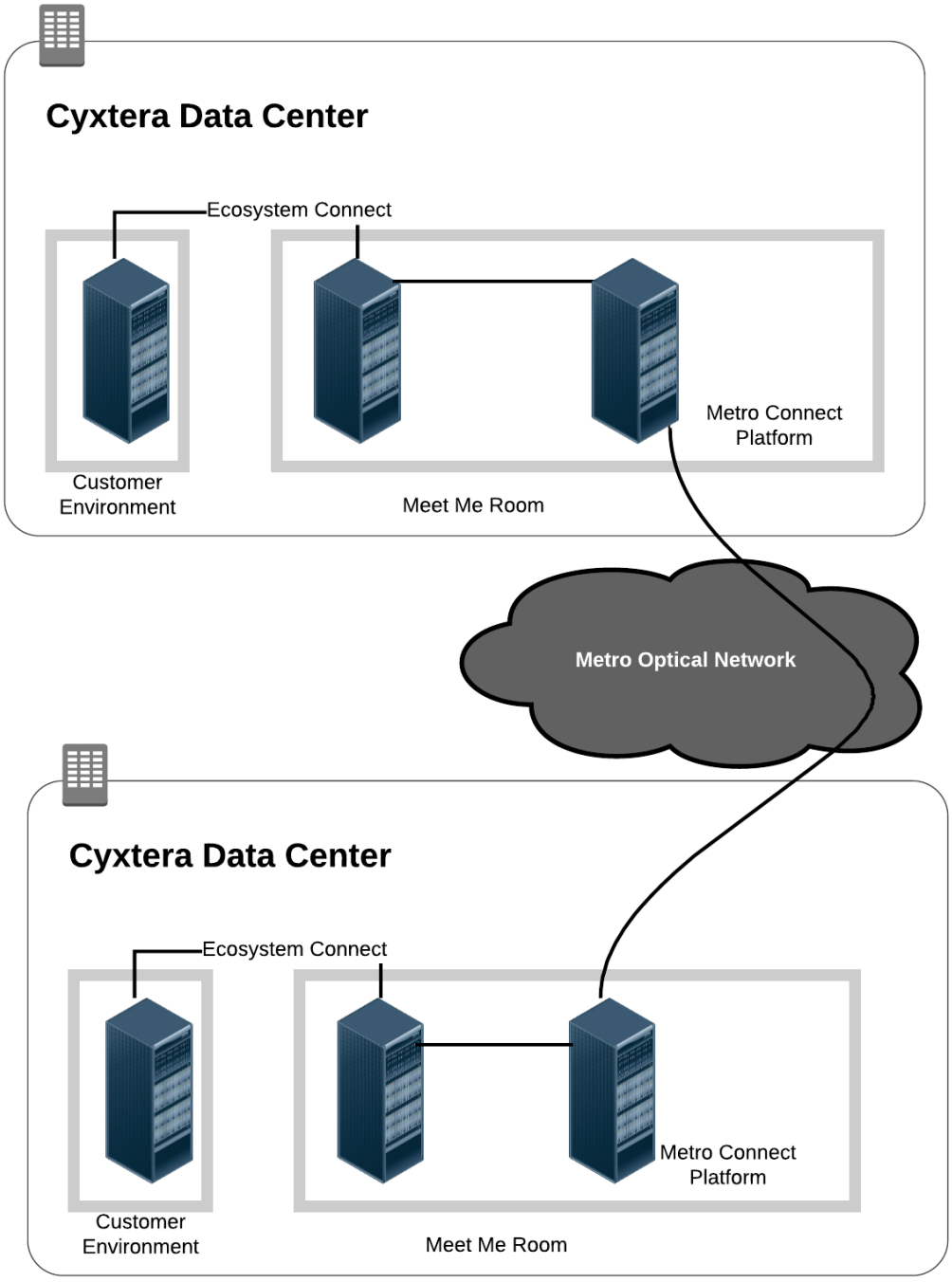
2.2.5 Service Diagram(s)



Metro Connect Dedicated - Single Port, Single Path

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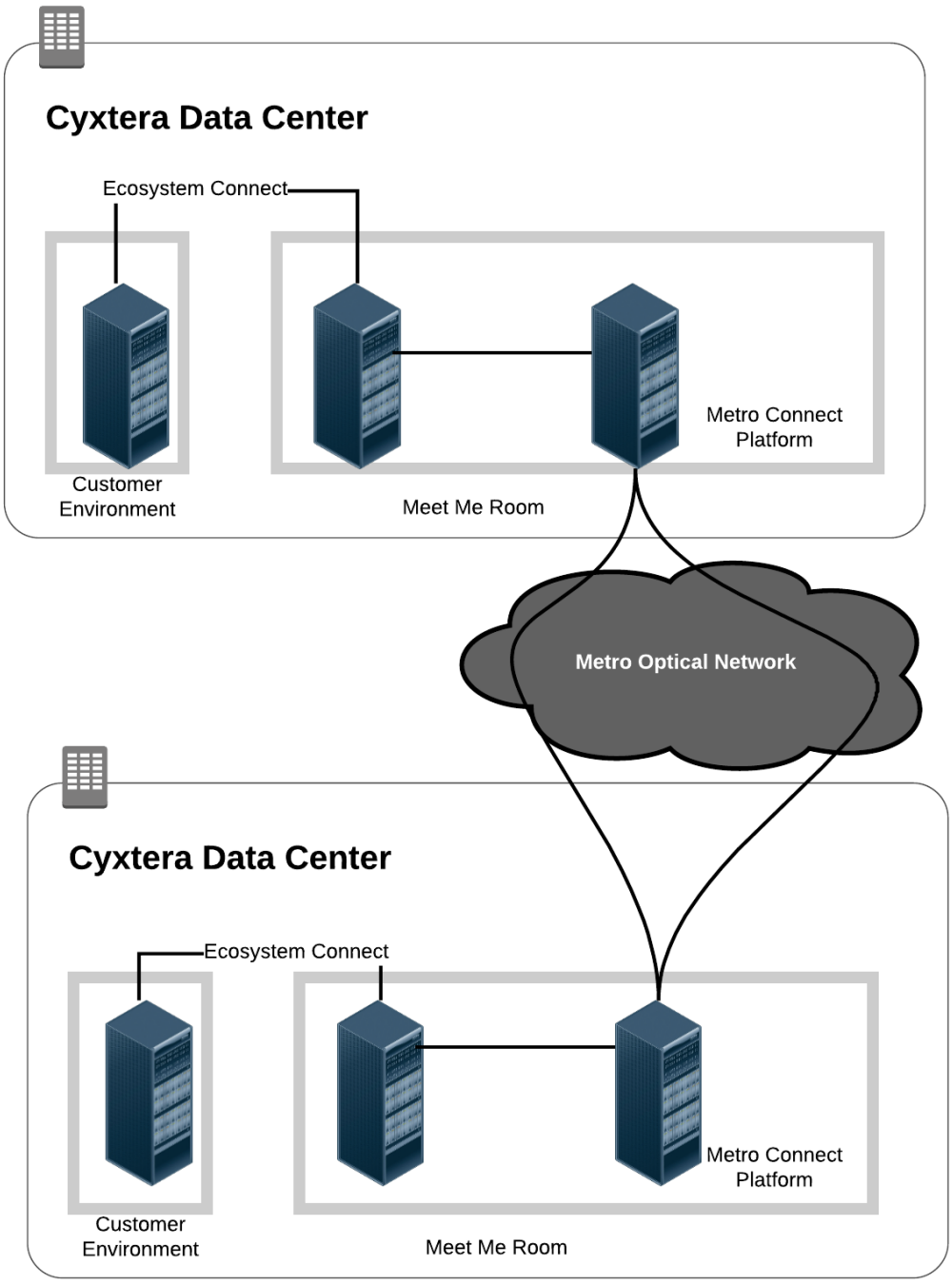

Metro Connect Dedicated - Single Port, Dual Path

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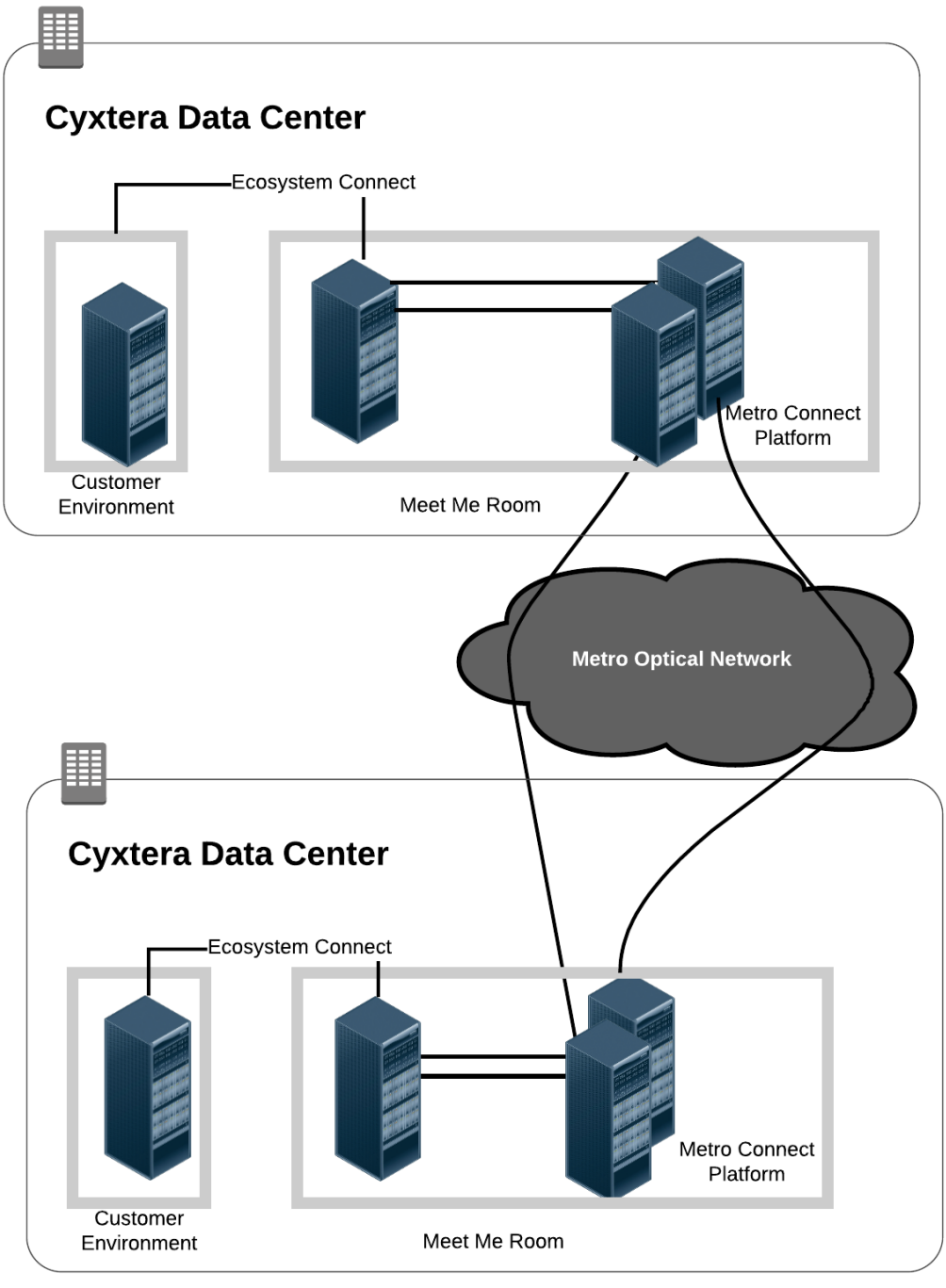

Metro Connect Dedicated - Dual Port, Dual Path with Single Ecosystem Connect Deployment

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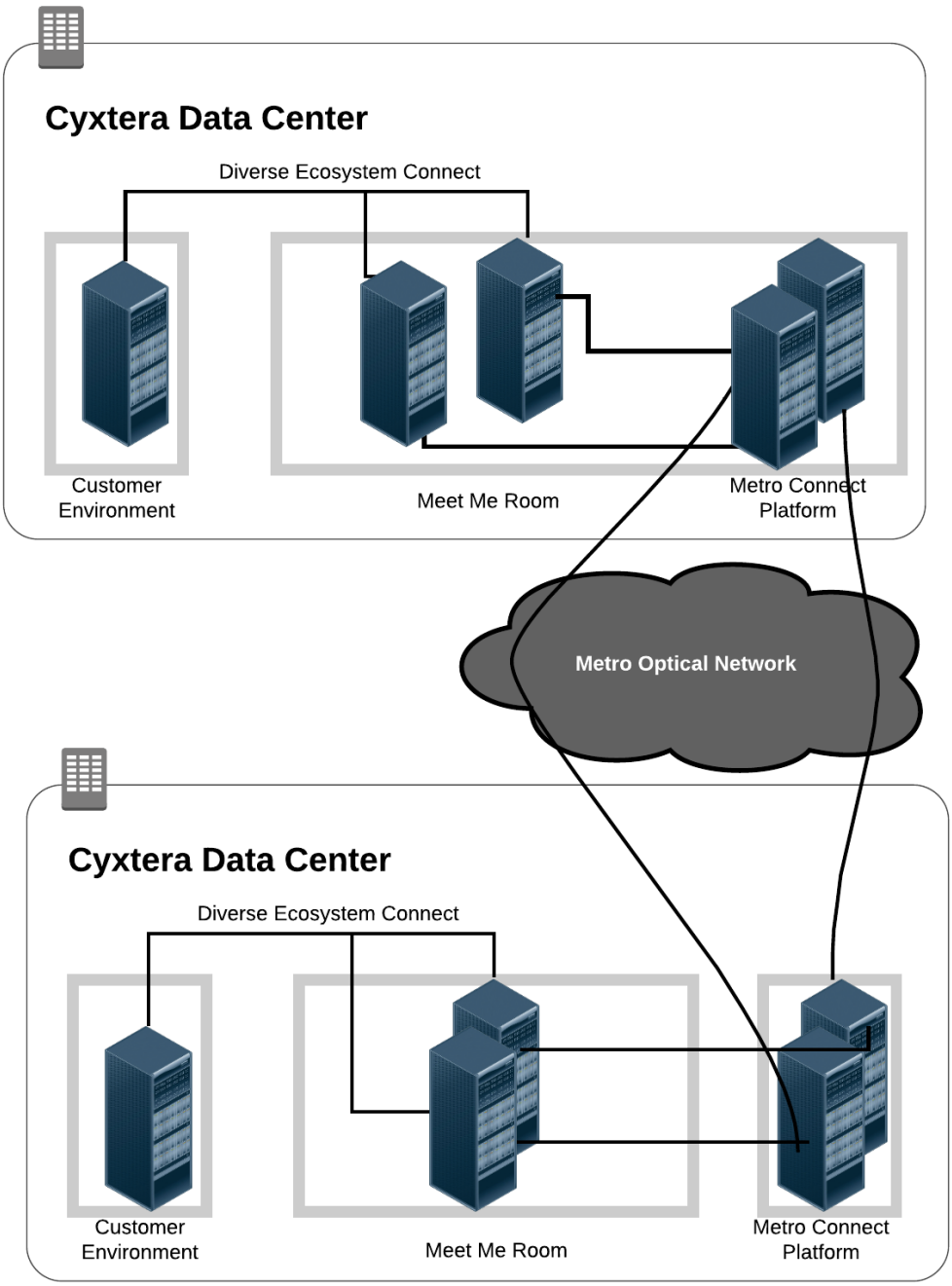

Metro Connect Dedicated - Dual Port, Dual Path with Dual Ecosystem Connect Deployment

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2.3 Encryption Standards

The Cyxtera Metro Connect platform leverages wire-speed OTN encryption per the FIPS 140-2 encryption standard.

2.4 Latency Standards

Metro Connect services utilize a circuit switched Optical Transport Network (OTN) that traverses a diverse Dense Wave Division Multiplexed (DWDM) optical network to provide ultra low latency links within each Metro Area Network.

3 Service Delivery and Support

The following outlines Cyxtera's roles and responsibilities in the service delivery of Metro Connect. While specific roles and responsibilities have also been identified as being owned by the customer, any roles or responsibilities not contained in this document are either not provided with the service or assumed to be customer's responsibility.

3.1 Provisioning

Cyxtera will provide the following provisioning services:

- If not previously completed, granting Portal access to administrative users using default administrator privileges and system preferences.
- Design, installation and test of cabling between the customer's Ecosystem Connect patch panels in the Cyxtera MMRs or to the patch panel in the non-Cyxtera interconnection area.
- Ordering of the cross connect in the non-Cyxtera data center, if applicable.
- Initial configuration and testing of the Metro Connect service.
- Physically label all components – cabling, patch panels, ports.
- Update inventory within the customer's account for viewing in the Portal.

Customer is responsible for the following provisioning activities:

- Providing the Ecosystem Connect port assignments.
- Providing LOA/CFA, if required.
- Implementation and management of failover processes and/or systems (Metro Connect Dedicated dual port/dual path only).

3.2 Support

Cyxtera employs skilled on-site technicians in each of its data centers. If the customer requires support with their Metro Connect service, they can request assistance from technicians by creating a case within the Portal. Cyxtera will provide all reasonable assistance to the customer while abiding by Cyxtera policies. Support charges may be incurred. See the Cyxtera Customer Guide for more information about obtaining such support from Cyxtera.

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3.3 Incident and Problem Management

Cyxtera actively monitors uptime for Metro Connect services, however any service interruption should be reported by the customer via a case in the Portal. Cyxtera will provide incident and problem management services (e.g. classification, recording, escalation, and return to service) pertaining to the infrastructure associated with the associated Metro Connect service. In the event of a service failure, please refer to your Colocation Service Level Agreement for details regarding your rights and remedies.

3.4 Security

Cyxtera will provide security for the aspects of the Service over which it has sole physical and administrative level control. Cyxtera will use commercially-reasonable efforts to provide Cyxtera data center security, protection of cabling within the cable troughs and/or trays within the Cyxtera data center and administrative controls for access within the Cyxtera facility where the service is provided. Security and access controls will be implemented per Cyxtera standard operating policies. See the Cyxtera Customer Guide for more information about such security and access controls.

4 Business Operations

4.1 New Orders

Metro Connect services are ordered through a Cyxtera Account Representative who will provide the customer a sales order for execution.

4.1.1 Letter of Authority / Connecting Facility Assignment (LOA/CFA)

A Letter of Authority / Connecting Facility Assignment (LOA/CFA) is required to be uploaded with any Metro Connect order that is terminating to a non-ordering customer's panel or that is terminating in a non-Cyxtera (3rd Party) data center. It is the responsibility of the ordering party to obtain the LOA/CFA for the order in accordance with the Cyxtera LOA/CFA policy.

4.2 Changes to Ordered Services and/or Existing Services

Unless otherwise agreed by Cyxtera, in its sole discretion, or as permitted pursuant to the following paragraph, if the customer requires any changes to (a) an ordered Metro Connect Service before installation of such Service or (b) a previously installed Metro Connect Service, they will need to submit a disconnect order and a new order to implement the change, and additional charges may apply. Hot Cuts and/or Parallel Cuts are not supported for any Metro Connect service.

4.3 Disconnects

Disconnects may be requested (a) in the customer portal made available by Cyxtera to customer for such purpose or (b) through any other process permitted by Cyxtera. Additional details can be obtained from your Account Representative.

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4.4 Expedite Requests

Request for expedited installation of Metro Connect services can only be approved by Cyxtera's Service Delivery team. Upon receipt of such a request, Cyxtera's Service Delivery Team will take various factors into account when considering whether or not to approve such request, including, but not limited to, products and services being purchased in the order, scope and scale of the installation of the services being purchased in the order, current Cyxtera workload and/or projects already in flight at the data center, customer's existing environment and procurement lead-times. An expedite fee may apply. Contact your Cyxtera Account Representative to inquire about an expedite request.

5 Service Level Objective(s)

Cyxtera offers a Service Level Objective for Metro Connect services. A Service Level Objective ("SLO") is a metric which Cyxtera makes all reasonable efforts to achieve during standard business operations.

5.1 Install

- **Metro Connect Dark Fiber:** Cyxtera will make all commercially reasonable efforts to complete installation and testing within 10 business days of an accepted sales order.

- **Metro Connect Dedicated:** Cyxtera will make all commercially reasonable efforts to complete installation and testing within 10 business days of an accepted sales order for 10Gbps connections and 60 business days of an accepted sales order for 100Gbps connections.

5.2 Uptime

- **Metro Connect Dark Fiber:** Commercially reasonable efforts are made to ensure that services will be available at all times — our goal is 100% uptime. A Metro Connect Dark Fiber is considered unavailable when the passive physical media and associated passive panels used for the connection fail and the endpoints of the connection are not able to maintain communication.

  Metro Connect Dark Fiber does not employ a protection scheme to re-route traffic in the event of equipment or passive physical media failure. Cyxtera views each Metro Connect Dark Fiber order as a stand-alone item and does not build a relationship between different orders.

- **Metro Connect Dedicated:** See Service Level Agreement(s)

Cyxtera does not offer remediation for missed Service Level Objectives.

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6 Service Level Agreement(s)

6.1 Uptime

- **Metro Connect Dedicated:** Cyxtera offers an uptime Service Level Agreement. For more information regarding the service levels offered for your Metro Connect Dedicated Service and rights and remedies offered in conjunction therewith, please refer to your Colocation Service Level Agreement.

7 Contract Terms

The following outlines the contract terms associated with each Metro Connect service:

- **Metro Connect Dark Fiber:** A Metro Connect Dark Fiber order incurs a non-recurring charge to cover the materials and labor associated with installation as well as the monthly recurring charges in connection with the provision of such Metro Connect Dark Fiber.

  Metro Connect Dark Fiber is considered a month-to-month service and may be cancelled with a 30-day notice and customer shall have no liability for early termination charges in connection with such a cancellation, except if a 3rd party cross connect is associated with the service and early termination charges are incurred. There is no charge to disconnect a Metro Connect Dark Fiber.

- **Metro Connect Dedicated:** Metro Connect Dedicated incurs a non-recurring charge to cover the materials and labor associated with installation as well as the monthly recurring charges in connection with the provision of such Metro Connect Dedicated service. Unless otherwise agreed in the service order for the Metro Connect Dedicated Service, Metro Connect Dedicated requires a minimum 12-month term.

  If the customer disconnects the Metro Connect Dedicated service prior to the end of their then-current term for such service, early termination fees will apply as outlined in the Service Agreement.

Cross Connects and/or Riser Connects ordered by Cyxtera within a non-Cyxtera location (3rd-party cross connects or Riser Connects) on behalf of the customer in connection with a Metro Connect service are subject to the terms and conditions set forth by the 3rd-party provider, including, but not limited to, cancellation, liability for early termination charges and charges to disconnect such 3rd-party connections.

All use of Metro Connect services must comply with Cyxtera's Acceptable Use Policy which may be modified by Cyxtera from time to time by posting an updated AUP at https://www.cyxtera.com/legal/Cyxtera-Acceptable-Use-Policy.pdf or a successor website designated by Cyxtera.

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8 Appendix

Included below are links to additional documentation that are related to Metro Connect services.

- Acceptable Use Policy
- Cyxtera Customer Guide
- Cyxtera Customer Support Portal
- Ecosystem Connect Service Description
- Cyxtera LOA/CFA Guide

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