

Dedicated Internet Access (DIA) Customer Premise Equipment (CPE)

Overview

This section discusses the Customer Premise Equipment (CPE) of your Dedicated Internet Access service. The CPE is used to connect your service to the network. If you purchase your CPE from XO, the XO Operations Desk will monitor and maintain it. If your CPE is not purchased from XO but is on the XO approved CPE list (see below), the Operations Desk will monitor it but you will be responsible for managing, troubleshooting, and providing maintenance on the CPE.

XO will assign a Wide Area Network (WAN)-side IP address for your network link to XO. XO uses numbered serial interfaces with a netmask of 255.255.255.252. Your Provisioning Engineer will provide actual WAN-side IP addresses for your CPE installation.

What is a Router?

A router is a computer or software package that serves as a connector between two or more networks. Routers determine the most efficient route to send data through the network, avoiding circuit overloads and ensuring safe delivery of packets. Most routers that connect to Dedicated Internet Access also serve as protocol converters, translating between the Dedicated Internet Access signal and (usually) the Ethernet network that comprises your office LAN.

What is a Channel Service Unit/Data Service Unit (CSU/DSU)?

A Channel Service Unit/Data Service Unit (CSU/DSU) is really two devices in one box. A T1 Dedicated Internet Access is made of four wires, and within these four wires are 24 logical channels, each of which is 64 Kbps (64 Kbps x 24 = 1.536 Mbps). The CSU is programmed to know which of these 24 channels you will be using. The DSU turns the channel data, processed by the CSU, into serial data streams, which can communicate with your router.

Approved CPE list

T1001, C17XX	C73XX
T1	Frac-DS3, DS3, Ethernet (10Mb), Fast Ethernet (100Mb), OC-3c, OC-12c, Gigabit Ethernet (1000Mb)
T1002, T1003, C25XX, C26XX	C74XX
T1, 2xT1	Frac-DS3, DS3, Ethernet (10Mb), Fast Ethernet (100Mb), OC-3c, OC-12c, Gigabit Ethernet (1000Mb)
T1004, C25XX, C26XX	C75XX, C76XX
T1, 2xT1, 3xT1, 4xT1	Frac-DS3, DS3, Ethernet (10Mb), Fast Ethernet (100Mb), OC-3c, OC12, Gigabit Ethernet (1000Mb)
T3120, C72XX	C12XXX
Frac-DS3, DS3, Ethernet (10Mb), Fast Ethernet (100Mb), OC-3c, OC-12c	Frac-DS3, DS3, Ethernet (10Mb), Fast Ethernet (100Mb), OC-3c, OC-12c, Gigabit Ethernet (1000Mb)
Key: T=Tasman, C=Cisco	