

# Charter Business Layer 2 versus Layer 3

## Key Service Considerations

Charter Business® offers both Layer 2 and Layer 3 services – Charter Business® Optical Ethernet Service and Charter Business® Layer 3 VPN Service. When deciding between a Layer 2 versus Layer 3 networking solution, it's best to evaluate the benefits of both and consider which one best fits your needs.

The vast majority of enterprises deploy Ethernet in their LANs. They understand the benefits of Ethernet and prefer this technology when connecting to their service provider demarcation points. This is true regardless of whether the enterprise will purchase Layer 2 Ethernet or Layer 3 IP VPN service from their service provider. However, beyond this demarcation point, the decision to choose Ethernet Layer 2 or Layer 3 service ultimately depends on business criteria as well as existing technology in place.

The attributes in the chart below provide considerations for making the best business and technological choice for your business.

### » KEY CONSIDERATIONS: LAYER 2 VERSUS LAYER 3 SERVICE

Layer 2 Charter Business Optical Ethernet Service	Layer 3 Charter Business Layer 3 VPN Service
<ul style="list-style-type: none"><li>• Enables transparent LAN services by extending your LAN across the Metropolitan Area (MAN) and Wide Area (WAN)</li><li>• Connect to the service using your existing switch or router</li><li>• Private Layer 2 Ethernet VPNs offering varying Charter implemented connectivity options (Point-to-Point, MultiPoint-to-MultiPoint, Point-to-MultiPoint)</li><li>• Metro Ethernet Forum Standards based service offering</li><li>• Highly flexible and scalable Ethernet bandwidth (in lieu of "bulky" TDM/SONET bandwidth increments)</li><li>• National Point-to-Point connectivity</li><li>• Transparently pass your Layer 3 protocols (IP, AppleTalk, DECnet, IPX, etc.) over the Charter Optical Ethernet service</li><li>• You (the Enterprise) control Layer 3 networking and routing decisions end-to-end</li><li>• Your IT department already understands the Ethernet technology (Ethernet) used for this service</li></ul>	<ul style="list-style-type: none"><li>• While network and some routing control reside with Charter, the customer routing is limited only by max prefix list (many service providers do not allow customers to control routing with Layer 3 VPNs)</li><li>• Scalable and simplified addition of connectivity to new customer locations to the existing service (explicit connection of the new location to each existing location not needed)</li><li>• National support of any connectivity type</li><li>• BGP routing protocol is supported</li><li>• Full mesh connectivity between customer endpoints with customer routes determining which traffic reaches what destinations</li><li>• Use a low cost Ethernet port from your existing Layer 3 equipment (router) to connect to this service</li><li>• Your IT department already has familiarity with the common and ubiquitous IP protocol</li></ul>

If you would like additional information or a consultation regarding which solution might be best for you, please contact **888.692.8635**.

