Dedicated Internet Access (DIA) Service: Secure, Reliable, High-Speed Multi-Site Connectivity

OVERVIEW

With Dedicated Internet Access (DIA) from Intelligent Fiber Network (IFN), the bandwidth purchased is guaranteed. If your company purchases a 100M dedicated fiber internet connection, you will always receive 100M. Unlike shared connections, where the speed is the maximum speed you will receive, is unpredictable, and fluctuates throughout the day, DIA is the same speed, every minute of the day. With DIA both download and upload speed/bandwidth are always guaranteed.

Key Highlights of DIA:

- **Private and Secure:** All data travels within the secure domain of a Layer 2 dedicated, high-capacity connection at native Ethernet speeds.
- **Fast and Reliable:** Service is offered with a 10Mbps, 100Mbps, 1Gbps, and 10Gbps Ethernet User-to-Network Interface (UNI) in speed increments from 10 Mbps to 10Gbps. IFN supports the Border Gateway Protocol (BGP) to ensure speed and reliability.
- **Matching Upload and Download Speeds:** DIA ensures your download speeds match your upload speeds around the clock to prevent lagging or any delay of service.
- **Better Response Time:** Significantly better response time than inexpensive, shared business Internet connections.

Service Description

- Dedicated Internet Service (DIA) from Intelligent Fiber Network (IFN) provides a more reliable, simpler, flexible, and higher bandwidth option than T1 and SONET based DIA services.
- The service is offered with a 10Mbps, 100Mbps, 1Gbps, and 1-Gbps Ethernet User-to-Network Interface (UNI) in speed increments from 10 Mbps to 10Gbps. IFN handles the Border Gateway Protocol (BGP) to ensure speed and reliability.
- DIA service provides an Ethernet Virtual Connection (EVC) from the customer premises location to an IFN Internet Point-of-Presence (POP) router.

TECHNICAL SPECIFICATIONS

Ethernet User-to-Network Interface:

The service provides bidirectional, full-duplex transmission of Ethernet frames using a standard Institute of Electrical and Electronics Engineers (IEEE) 802.3 Ethernet interface.

Traffic Management:

IFN's Network traffic-policing policies restrict traffic flows to the subscribed, Committed Information Rate (CIR). If the customer-transmitted bandwidth rate exceeds the subscription rate (CIR) and burst size (CBS), IFN will discard the non-conformant packets. The customer's router must shape their traffic to their contracted CIR.

Maximum Frame Size:

The service supports a maximum transmission unit (MTU) frame size of 1518 bytes including Layer 2 Ethernet header and Frame Check Sequence (FCS).

IP Address Allocation:

IP address space is a finite resource that is an essential requirement for all Internet access services. IFN assigns one (1) routable IP addresses to each customer circuit. Customers can obtain additional IP addresses if required based on the American Registry for Internet Numbers (ARIN) guidelines and by completing an IP Address Justification form; additional charges may apply.

Domain Name Service:

IFN provides primary and secondary Domain Name Service (DNS). DNS is the basic Network service that translates host and domain names into corresponding IP addresses, and vice-versa. IFN does prevent customers from utilizing third-party Domain Name Services, but IFN does not guarantee the functionality of third-party Domain Name Services.

Border Gateway Protocol (BGP) Routing:

IFN supports BGP-4 routing as an optional service feature. BGP-4 allows customers to efficiently multi-home across multiple Internet Service Provider (ISP) Networks. The service requires that an Autonomous System Number (ASN) be assigned to a customer by ARIN. Customers should also be proficient in BGP routing protocol to provision and maintain the service on their router. See the IFN Border Gateway Protocol Policy section for further details. IFN supports private peering if the customer is multi-homed to IFN's Network only.

More advanced technical information can be found in the appendix »